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COLOMBIAN STUDENTS' BELIEFS ABOUT LANGUAGE TEACHING AND LEARNING INVENTORY (COBALTALI): DEVELOPMENT, VALIDATION AND RESULTS

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ABSTRACT

In response to the absence of validated research instruments and lack of research in the area of language learning beliefs (LLB thereafter) in Colombia, this study has three main aims: 1) to develop and validate an inventory which allows researchers to collect data to examine beliefs university students hold about English language teaching and learning, 2) to describe Colombian university students' English language teaching and learning beliefs, and 3) to investigate the relationship between Colombian English language teaching and learning beliefs and four independent variables: gender, English level, socioeconomic stratum, and age. For the purpose of the study, first an instrument to examine university students' beliefs about English language teaching and learning is developed and validated, called Colombian Students' Beliefs about Language Teaching and Learning Inventory (COBALTALI). This instrument is found to exhibit, based on qualitative and quantitative approaches, "pertinent" or suitable content and construct validity properties, as well as fitting moderate internal consistency and stability reliability scores. Second, a description of participants' beliefs about English language learning and teaching is performed, which reveals that they hold a variety of beliefs about English language teaching and learning with potential impact on the different processes involved in learning English. Third, an exploration of the relationship between English language teaching and learning beliefs and four independent variables - gender, English level, socioeconomic stratum, and age – is undertaken, which yields important findings that can contribute to the

understanding of the extent these four independent variables exert influence on the English language learning beliefs held by the participants in the current study. Overall, these results constitute an important contribution to the understanding and investigation of beliefs about English language teaching and learning in Colombia because in this country there is a lack of both systematic studies on university learners' beliefs about English language learning and teaching and validated instruments to investigate such beliefs.

RESUMEN

En respuesta a la ausencia de instrumentos de investigación validados y la carencia de investigaciones en el ámbito de las creencias de aprendizaje de idiomas (LLB) en Colombia, este estudio tiene tres objetivos principales: 1) desarrollar y validar un inventario que permita recopilar datos para examinar las creencias que estudiantes universitarios tengan sobre la enseñanza y el aprendizaje del idioma Inglés; 2) describir las creencias que estudiantes universitarios colombianos tienen acerca de la enseñanza y del aprendizaje del Inglés; y 3) investigar la relación entre las variables independientes de sexo, nivel de Inglés, estrato socioeconómico, edad y las creencias acerca de la enseñanza y el aprendizaje del idioma Inglés. Para los fines del estudio, en primer lugar se desarrolla y valida un instrumento concebido para examinar las creencias que tienen los estudiantes universitarios sobre la enseñanza y el

aprendizaje del idioma Inglés, denominado Colombian Beliefs about Language Teaching and Learning Inventory (COBALTALI). Este instrumento demuestra, con base en análisis de tipo cualitativo y cuantitativo, propiedades de validez de contenido y de constructo “pertinentes” o adecuadas, al igual que estimaciones moderadas de confiabilidad de tipo consistencia interna y estabilidad. En segundo lugar, se realiza una descripción de las creencias de los participantes sobre la enseñanza y el aprendizaje del idioma inglés, la cual revela que estos participantes tienen una gran variedad de creencias sobre la enseñanza y el aprendizaje del idioma inglés con impacto potencial en los diferentes procesos que intervienen en el aprendizaje del inglés. En tercer lugar, se lleva a cabo una exploración sobre qué relación existe entre las creencias sobre la enseñanza y el aprendizaje del inglés y las cuatro variables independientes en cuestión – sexo, nivel de Inglés, estrato socioeconómico y edad –, la cual genera resultados importantes que pueden contribuir a la comprensión de qué tanto estas cuatro variables ejercen influencia sobre las creencias que tienen los participantes del estudio sobre la enseñanza y el aprendizaje del idioma Inglés. En general, estos resultados constituyen una contribución importante a la comprensión y la investigación de las creencias sobre la enseñanza y el aprendizaje del idioma Inglés en Colombia porque en este país hay una falta tanto de estudios sistemáticos sobre las creencias que los alumnos universitarios tienen sobre la enseñanza y el aprendizaje del idiomas inglés como de instrumentos vadidados para investigar tales creencias.

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DEDICATION

I would like to dedicate this thesis

to my dear son **Joshua**

and my beloved wife **Maryluz**

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FIRST PART:

About the Study

CHAPTER 1. INTRODUCTION

CHAPTER OVERVIEW

As an introduction, this chapter is devoted to present an overview of the study. It begins with the background of the study, in which the circumstances and motives that guided the author to undertake this study are described. It then continues with details about the statement of the problem, purpose of the study, research questions, and some details about the research context. It finishes with an overview of the chapters composing this dissertation.

1.1 BACKGROUND OF THE STUDY

There are four facts that have motivated me to undertake this study: 1) research findings on language learning beliefs support the claim that understanding the role of learner's beliefs about language learning is essential for effective teaching and learning because learner's beliefs about language learning highly influence their classroom activities and decisions, their performance (Bandura, 1997) and success (Rieger, 2009); 2); there is a lack of studies that describe the beliefs Colombian university students hold about English language learning and teaching; 3) there is no study showing whether

gender, English level, socioeconomic stratum, and age variables affect Colombian university learners' beliefs about English language teaching and learning; and 4) there is not a Colombian context sensitive questionnaire or inventory to describe the beliefs Colombian university students hold about English language learning and teaching. In addition to these motivations and in order to provide a wider background of the study I would like to add how my interest in studying beliefs university students hold about English language learning and teaching was born. The following lines are devoted for that purpose.

As an English teacher the first thing I usually do when starting a course is to ask the students about their learning experiences, perceptions, styles and expectations as learners of English. This discussion is usually carried out in their mother tongue (L1). By doing this, I can create a likeable and confident environment while getting a whole picture of each student and get data that help me direct the classes according to the students' expectations and the objectives of the respective course. This "breaking the ice activity" has led me to be aware of and become more interested in the wide range of ideas students hold about their learning process and their potential impact on aspects such as their academic performance and their motivation in the English class. This interest grew when in a course within the doctoral program of applied linguistics at the UAM, focusing on individual factors in language learning, a piece of research on language learning beliefs was discussed. In that moment I discovered that part of what I had informally been enquiring my

students at the beginning of the courses had already been (and still is) the topic of interest for many researchers. After that course I was determined to know more about those “elements” which, from my personal viewpoint, play an important role with regard to the students’ actions in the classroom. I later realized that these elements were approached and labeled in various ways in language education, including “implicit theories” (Clark & Peterson, 1986), “explicit propositions” (Nisbett & Ross, 1980), “conceptions” (Ekeblad & Bond, 1994), “personal theories” (Borg, 1999), “judgements” (Yero, 2002), “perceptions” (Schulz, 2001), and “beliefs about language teaching and learning” (Pajares, 1992).

My interest in gaining insight into the aforementioned “elements” led me to undertake a study on students’ and teachers' language learning beliefs in Colombia (see Marín, 2012). The study, carried out in two Colombian public schools, pursued three objectives: 1) describe the beliefs twenty teachers held about language learning; 2) depict the beliefs twenty students held about language learning, and 3) compare the teachers’ beliefs with those of their students. For that purpose, a questionnaire survey developed by Sakui and Gaies (1999) was conducted with the participants in the study, which showed a 5- Likert scale response option ranging from strongly agree to strongly disagree. The findings suggested that a considerable set of beliefs held by the teachers were greatly related to what Sakui and Gaies (1999) called a "contemporary and communicative approach to language learning". Five of the highest teachers' either strongly agree or agree responses were concerning

the following items: “Listening to tapes and watching English programs on television are very important in learning English”, “Students can improve their English by speaking English with their classmates”, “English class should be enjoyable”, “If students learn to speak English very well, it will help them get a good job”, and “Colombian people think it is important to speak English”. With regard to the students' beliefs, the results revealed that the five items which held the highest students' strongly agree responses were the following: “It is easier to speak English than to understand it”, “It is easier to read and write English than to speak and understand it”, “If my teacher is a native speaker, he/she should be able to speak Spanish when necessary”, “Girls are better than boys at learning English” and “English class should be enjoyable”.

The results concerning the comparison between the teachers' and their students' beliefs revealed similarities as well as differences. With respect to the levels of similarity, for example, the study revealed that teachers and students reported a considerable level belief affinity percentage concerning the items “English class should be enjoyable” (95% of teachers and students either strongly agree or agree), “It is easier for children than adults to learn English” (90% of teachers either strongly agree or agree and 80% of students either strongly agree or agree), and “Learning English is mostly a matter of learning grammar rules” (25% of teachers either strongly agree or agree and 35% of students either strongly agree or agree). The items in which teachers and students showed considerable level of disparity were, for example, “Women are better than men at learning English” (0% of teachers either strongly agree

or agree and 100% of students either strongly agree or agree), “It is easier to speak English than to understand it” (10% of teachers either strongly agree or agree whereas 100% of students whether strongly agree or agree), “Students can improve their English by speaking English with their classmates” (100% of teachers either strongly agree or agree whereas 10% of students either strongly agree or agree), and “You can learn to improve your English only from native speakers of English” (25% of teachers either strongly agree or agree and 95% of students either strongly agree or agree).

The levels of disparity in some items were seen with concern due to the implications they could entail for classroom practices. For instance, the finding concerning the item “Students can improve their English by speaking English with their classmates” means that while teachers in this study are keen to undertake as much student-student interaction in class as possible in classroom workshops, students are more willing to have teacher-centered-interactions in class to improve their communicative skills (Marín, 2012, p. 81). This finding problematizes the fact that student-centered methodologies might not work if students do not believe in their effectiveness. Another finding with potential pedagogical implication was concerning the item “You can learn to improve your English only from native speakers of English”, as that finding could indicate that those students were probably discouraged to learn English with their Colombian teachers because they were not native speakers.

It should be noted that to carry out that investigation I drew on a foreign research instrument, a questionnaire survey developed by Sakui and Gaies (1999) to study beliefs about language learning of Japanese university learners of English, because neither in Colombia nor in South America there was an instrument for this purpose.

The experience depicted above, as it was previously noted, drove me to think that it was time to undertake a more robust study on beliefs Colombian learners hold about English language learning and teaching. As pointed out earlier, despite the existing evidence in the literature, from different parts of the world, that understanding learners´ beliefs about language learning could be essential for effective teaching and learning, the panorama of improving English language teaching and learning in Colombia through research findings was pessimistic because of the lack of studies on this issue in this country.

Additionally, after finishing the study mentioned above, I had access to Rifkin's (2000) study, developed to investigate learners' beliefs about language learning in several institutions in the U.S. One of his findings drew my attention: he evidenced that beliefs differed by contextual settings. This finding made me realize that the instrument I had used presented three features which could "tarnish" the interpretation of the results of a study undertaken in Colombia: 1) a relatively old instrument, that is, an instrument with more than 13 years, 2) an instrument developed for a quite different socio-cultural context - Japan-, and 3) an instrument whose psychometric properties had not been

assessed in the Colombian context. Thereby, I also realized that it was time to have a Colombian context-sensitive instrument for future research of this type, that is, a "current" instrument, with psychometric properties validated in Colombia, whose items capture and depict the most latent and prominent beliefs Colombian students held about language learning and teaching. The idea was to develop an instrument intended to facilitate and boost future research in the different educational settings of Colombia and nearby countries.

The experiences depicted above motivated me to undertake this study. For the current study I chose to focus on university students because I was also interested in examining the extent to which gender, English level, socioeconomic stratum, and age variables affect learners' beliefs about English language teaching and learning and in universities there are more possibilities of having participants with a wider range of ages, socioeconomic strata and English levels. Another reason to choose university students was availability for data collection: two universities were my workplaces and in two other universities I had some colleagues who were interested in helping me with the permissions to collect information. I chose to examine the four variables mentioned above because in my opinion they could exert the strongest influence on Colombian learners' language beliefs.

1.2 STATEMENT OF THE PROBLEM

Language learners hold a variety of beliefs about different “spectrums” of language teaching and learning, which have been recognized as significant affective factors in their learning process and success (Breen, 2001). Consequently, language learning beliefs (LLB) has been given considerable attention by researchers in recent decades (Horwitz, 1985; Kern, 1995; Mantle-Bromley, 1995; Pajares, 1992; Peacock, 2001). The increased attention allotted to LLB is based on the widely recognized assumptions by researchers that understanding and reflecting on the role of LLB is essential for effective teaching and learning (Arnold, 1999; Breen, 2001; Dörnyei, 2005, Ariani & Ghafournia (2015). Surprisingly, although it is widely recognized that LLBs play an important role in students’ decisions and actions in their language learning processes and that gaining insight into those beliefs is crucial for effective language teaching and learning, there is a gap in knowledge concerning the beliefs Colombian university students hold about English language learning and teaching. Indeed, the lack of studies focused on describing the beliefs Colombian university students hold about English language learning or on examining how important variables such as gender, English level, socioeconomic stratum, and age affect learners’ beliefs about English language teaching and learning is notorious in mainstream literature.

But, in view of the scarcity of knowledge and understanding of LLB in Colombia, what can foster research on LLB in this country? A possible answer to this question can be related to the existence of a reliable, validated context-sensitive data collection instrument. In this respect it is worth noting that besides the exiguity of studies focused on depicting the beliefs Colombian university students hold about English language learning, the absence of context sensitive, reliable and validated instruments to examine Colombian language learning beliefs is another factor that possibly contributes to the paucity of research aiming at exploring Colombian students' LLB. Likewise it is pertinent to highlight that when having a non-exhaustive look at the empirical studies focused on LLB it seems that questionnaires or inventories have been the most widely used data collection technique to examine LLB (Campbell, Shaw, Plageman, & Allen, 1993; Cotterall, 1995; Horwitz, 1985, 1988; Kuntz, 1996; Mantle-Bromley, 1995; Mori, 1997; Sakui & Gaies, 1999; Victori, 1992). Perhaps the reasons that have led a considerable number of LLB researchers to draw on questionnaires are the advantages that these data collection instruments present: "They are less threatening than observation, useful if the researcher has limited resources and time, …questionnaires afford precision and clarity, allow access to outside contexts, and allow data to be collected at different time slots" (Barcelos, 2003, p. 15). Furthermore, questionnaires allow the researcher to collect and tabulate large amounts of information from many participants in a relatively short time.

Additionally, it is worthwhile noting that when choosing a questionnaire as the data collection instrument researchers usually have three options: using an instrument that has been used for the same purpose in other countries, usually with different socio-cultural contexts, adapting one or developing one, the latter being the least adopted option by LLB researchers. A possible explanation to this fact is that developing a questionnaire is the most time-consuming and difficult alternative, while using or adapting an available instrument could seem a practical and feasible option. However, when considering some studies on LLB which show that LLBs are based on experience (Wenden, 1986), and influenced by the context or the culture (Cortazzi & Jin, 1996; Nikitina & Furuoka, 2006), the benefits of developing (and eventually validating) a questionnaire which takes into account the specific characteristics of a given population far outweigh the disadvantages.

In Colombia, for example, the idea of designing and validating a questionnaire to study Colombian students' beliefs about English language learning and teaching, one of the purposes of this study could be seen, by the language educational community, as a valuable, if not necessary contribution to its field. Valuable because in this country an instrument of these characteristics has never been designed despite the fact that literature on language education, with the recent emphasis on holistic approaches to language learning, evidences the importance of considering those beliefs at the time of making decisions regarding teaching and learning processes (Dörnyei, 2005; Horwitz, 1999; Nunan, 1986; Wenden, 1999).

In short, it is widely recognized that LLBs play an important role in students' decisions and actions in their language learning processes and that the attempts to examine those beliefs with the use of local-developed- and-validated questionnaires, as it is the main purpose of this study, are worth undertaking, especially in a country like Colombia that lacks both instruments of this nature and research focused on shedding light in the understanding and operation of students' LLBs. As noted, in Colombia there is a paucity of research aiming at exploring Colombian students' LLBs and, thus, a local questionnaire with robust psychometric properties could foster investigation on this issue.

1.3 PURPOSE OF THE STUDY

The purpose of this study is threefold: first, to develop and validate an inventory that can be used to examine beliefs Colombian university students hold about English language teaching and learning; second, to describe the beliefs Colombian university students of English, who are pursuing different university programs, hold about English language teaching and learning; and third, to determine whether gender, English level, socioeconomic stratum, and age variables affect learners' beliefs about English language teaching and learning.

As pointed out earlier, the study focuses on university students for two reasons: because one of the motivations of the study was to explore the effect of gender, English level, socioeconomic stratum, and age variables on learners' beliefs about English language teaching and learning and it is more likely to get participants in universities with a wider variety of English level, socioeconomic stratum, and age than in high schools and, because for the researcher it is easier to collect information in universities than in high schools. It is also recalled that the four variables under examination (gender, English level, socioeconomic stratum, and age) were chosen because in the researcher's opinion they were the participants' aspects that could exert the strongest influence on their language learning beliefs.

Thus, this project, in addition to attempting to contribute to the Colombian academic community focused on language education with the provision of both a research instrument and a description of Colombian university students' beliefs, also intends to provide information to gain insights into the role of gender, English level, socioeconomic stratum, and age variables in Colombian university students' LLB. The research instrument is intended to be developed from data supplied by the population for which the instrument is intended and designed, with robust psychometric properties.

1.4 RESEARCH QUESTIONS

Ten research questions were posed to guide the current study. To help fulfill the first objective of this study, regarding the development and validation of an inventory that allows researchers to collect data to examine beliefs Colombian university students hold about English language teaching and learning, the following five research questions are addressed:

1) Does the target instrument – COBALTALI – show evidence of validity?

2) What dimensions of language learning beliefs, according to expert judgment, does the instrument – COBALTALI – focus on?

3) What dimensions of language learning beliefs can be identified through factor analysis in the beliefs about English language teaching and learning reported by Colombian university students?

4) What evidence of reliability does the target instrument – COBALTALI – show according to the dimensions of language learning beliefs identified through expert judgment?

5) What evidence of reliability does the target instrument – COBALTALI – show according to the factors emerged through factor analysis?

To guide attainment of the second objective of this work – the description of the beliefs Colombian university students, who are both learning English as a foreign language and pursuing a university career in Colombia, hold about English language teaching and learning –- the following research question is posed: What beliefs do university students who are learning English as a foreign language in Colombia hold about English language teaching and learning?

To reach the third objective of this study – the investigation of the relationship between beliefs about English language learning and the independent variables labeled as gender, English level, socioeconomic stratum, and age – the following four research questions are formulated:

1) Does gender affect Colombian learners' beliefs about English language teaching and learning?

2) Does English level affect Colombian learners' beliefs about English language teaching and learning?

3) Does socioeconomic stratum affect Colombian learners' beliefs about English language teaching and learning?

4) Does age affect Colombian learners' beliefs about English language teaching and learning?

1.5 RESEARCH CONTEXT

Two types of information deserve to be considered in this study to gain insight about its research context: the place in which the study took place and the current language reforms in which the study is framed. Before describing the research context of the study, it would be useful to first clarify that the participants in this investigation were university students who were not enrolled in English university careers but who belonged to other different degrees, including economy, international business, accountancy, business administration, and computer engineer.

Moving to spatial details, the present study took place in Bogotá, Colombia. It may be pertinent to point out that Colombia is a multilingual and multicultural country. Its culture is the result of the mix of Europeans, most of them coming from Spain, indigenous peoples and African slaves brought by the conquerors. In this country there are approximately 80 indigenous communities that speak around 64 languages and some 300 dialectal varieties (Ayala & Álvarez, 2005).

Interestingly, despite its long tradition of bi-multilingualism, Colombia is commonly seen as a Spanish-speaking country. Bogotá, its capital, was chosen for the study because the primary interest of the researcher was to count on the largest number of Colombian participants for the study and Bogota has the largest number of universities in the country. Oddly, although attempts were made to obtain a sample from 22 universities, for the first phase of the study, that is, the generation of the items for the intended instrument (Colombian Beliefs about Language Teaching and Learning Inventory – COBALTALI –), only four universities allowed to collect data from their students who voluntarily decided to participate. Fortunately, the number of participants composing the sample from these four universities was considerable (249 university students). Likewise, despite the fact that endeavors were made to obtain a sample from 22 universities located in Bogota to administer the target instrument (COBALTALI), only six of them decided to participate. Again, the number of participants composing this new sample from these six universities was luckily substantial (563 university students).

Now, for a wider comprehension of the research context of this study, it is important to understand the current language policies that regulate the English language education of the institutions which served to obtain the samples for this study. The Ministry of Education (MEN hereafter) in Colombia has recently introduced a number of language reforms, including the so called “Revolución Educativa 2002-2006 and 2006-2010” (Educational Revolution 2002-2006 & 2006-2010) and “Programa Nacional de Bilingüismo, Colombia 2004-2019”

(National Bilingual Program, Colombia 2004-2019) (Colombia, Ministerio de Educación Nacional, 2002; 2005; 2008). The National Bilingual Program (NBP hereafter) aims at meeting the challenges of internationalization and globalization by improving the quality of English teaching. In words of the MEN (see the official web page of the National Ministry of education: http://www.colombiaaprende.edu.co), the main objective of the NBP is "to have citizens able to communicate in English with internationally comparable standards, to insert the country into universal communication processes, global economy and cultural openness"[1] (www.colombiaaprende.edu.co). To pursue this objective through the NBP, which covers primary and secondary education as well as higher education (university) the MEN has undertaken a series of actions for the whole educational system, eight of them clearly summarized by Usma (2009, p. 23) and quoted further:

a. Introduction of the concept of “bilingualism”
b. Establishment of English-Spanish as the new notion of bilingualism
c. Designation of the British Council as the leading organization in charge of the development, implementation and control of the plan
d. Adoption of the *Common European Framework of Reference for Languages* (Council of Europe, 2001) as the norm that will regulate the whole system

[1] Translation made by the researcher

e. Definition of standards to regulate and homogenize teaching practice, language learning, professional development, and school accreditation according to the guidelines provided by foreign consultants

f. Introduction of international standardized tests to determine teachers' and students' communicative competence

g. Institutionalization of language approaches and methods according to internationally accepted practices validated outside the country

h. Deregulation that allows private organizations to compete with public institutions in the education market and exempts international organizations from the accreditation process.

Regarding point *d* (from the previous list) stated by Usma (2009), the Colombian universities are also called for the adoption of the *Common European Framework of Reference for Languages* (CEFR hereafter) to regulate the teaching of English. Consequently, the participating universities in this study are institutions which adopted the CEFR, as the Colombian central government states in the NBP. According to the NBP, the students of Tertiary Education are expected to reach the B2 English level, based on the CEFR, after completing the English courses offered by the universities.

The details presented on the context of the study have hopefully helped to clarify three aspects of the research context of this study: a) that the students who agreed to take part in the study were not enrolled in degrees in which English is the primary subject; b) that the present study took place in Bogotá, because the researcher considered it a good place for his study since it has a substantial number of universities, and c) that the institutions where the samples emerged for the study were institutions whose English programs were regulated by the Colombian NBP.

1.6 OVERVIEW OF THE DISSERTATION

The current dissertation consists of six parts. In this part, the first one, an introduction of the study is presented, which includes details about its background, the statement of the problem, the purpose, the research questions, the research context, and an overview of the current dissertation.

The second part, Theoretical and Conceptual Underpinnings of the Study, which is comprised by two chapters, (learner beliefs and research instruments in applied linguistics), is devoted to present the theoretical and conceptual underpinnings adopted to guide this study. Chapter I of this part includes an exploration of beliefs, an exploration of beliefs about learning, beliefs about language learning (BALL), and research approaches to language learning

beliefs. Chapter II of this second part (research instruments in applied linguistics) deals with an overview of research traditions and research methods in the field of applied linguistics, quality criteria and standards in quantitative research, quality criteria in qualitative research, and validity, including content validity, methods of content validation, quantitative approaches in content validation, criterion-related validity, construct validity, methods of measuring construct validity.

The third part describes the methodology of the study. It first reviews the ten research questions posed to guide this study and presents details about the research design and the participants. Then, it describes the instruments employed and data collected. Finally, this third part of the dissertation provides details about the methodological phases of the study.

The fourth part is devoted to present the results of the study. It contains a chapter with five sections. The first section (labeledas Section A: Results corresponding to the Development of the COBALTALI) reports the results related to the first macro objective of this study, which mainly deal with the development of the COBALTALI; the second section (labeledas Section B: Participants' Belief Description Stage) addresses the results related to the second objective of the study, which have to do with the description of the beliefs Colombian university students of English hold about English language teaching and learning; the third section (labeledas Section C: Results of the COBALTALI Dimensionality through a Quantitative Approach – Factor Analysis

–), dealing with the first objective of the study, reports the results related to the identification of the facets or dimensions of language learning beliefs that the COBALTALI addresses through its item-beliefs; the fourth section (labeledas Section D: Results of the COBALTALI Reliability through a Quantitative Approach – Factor Analysis –), also addressing the first objective of the study, presents the results that concern the reliability properties of the COBALTALI estimated through factor analysis; and the fifth, last, section (labeled as Section E: Results on the gender, English level, socioeconomic stratum, and age variables), dealing with the third main objective of the study, reports the results related to the examination of the extent to which the variables of gender, English level, socioeconomic stratum, and age affect learners' beliefs about English language teaching and learning.

The fifth part focuses on discussing the results of the study. It consists of a chapter divided into five sections. The first section is dedicated to discuss the results concerning the development of the COBALTALI, which addresses the first macro objective of this study; the second section is devoted to address the results about the description of the participants' beliefs, which has to do with the second objective of the study; the third section is designed to interpret the results that deal with the identification of the dimensions, facets, or subcategories of language learning beliefs that the COBALTALI address through its item-beliefs, which concerns the first objective of the study; the fourth section is assumed to discuss the results that concern the reliability properties of the COBALTALI estimated through factor analysis, which relates

to the first objective of the study; and the fifth, the last, section is conceived to interpret the results related to the examination, from a quantitative approach, of the extent the variables of gender, English level, socioeconomic stratum, and age affect learners' beliefs about English language teaching and learning, which deals with the third objective of the study.

The last part of this dissertation deals with the conclusions of the study. It starts by presenting the prominent conclusions of this study and its uniqueness. It then proceeds to address the implications of the findings and present some recommendations. After that it focuses on the pedagogical implications and recommendations of the findings, as well as the implications and recommendations for the use of the target instrument: Colombian Beliefs about language teaching and learning inventory or COBALTALI. This last part of the dissertation ends up by outlining the limitations of the study and presenting some directions for further research.

CHAPTER SUMMARY

As an introduction, this chapter provided an overview of the current study and an orientation for the reader to address the different parts that comprise this dissertation. It began by presenting the motives that drove the researcher to undertake this study. This continued by addressing the importance of studying

the beliefs students hold about English language learning and teaching when attempting to improve their language learning process. In doing so, it was also highlighted the necessity of counting on a local-developed- and- validated questionnaire to examine Colombian university learners beliefs about English language learning and teaching and to foster research on this issue in Colombia. It then moved towardss the three main purposes of the study. This continued by setting out the ten research questions posed to guide the project, and then focused on presenting some contextual details about the place in which the study will take place and the current language reforms in which the study is framed. The chapter finished with a presentation of an executive summary of the dissertation. The end of this chapter gives place to the literature review, which is addressed in the next section.

SECOND PART:

Theoretical and Conceptual Underpinnings of the Study

CHAPTER 2. LEARNER BELIEFS

CHAPTER OVERVIEW

As indicated in Chapter 1, this study pursues three broad purposes: 1) to develop and validate an inventory to study beliefs Colombian university students hold about English language teaching and learning; 2) to describe beliefs Colombian university students hold about English language teaching and learning; and 3) to determine whether gender, English level, socioeconomic stratum, and age affect these learners' beliefs about English language teaching and learning. In order to fulfill the aforementioned objectives a review of the most relevant literature to this investigation is performed and presented in this chapter, which turns around language learning beliefs. The literature reviewed in this chapter deals with the second and third objective of the dissertation and the following chapter addresses relevant literature related to the first objective.

Adopting a deductive approach, this chapter first addresses the term beliefs, and then focuses on beliefs about learning (BAL). It then continues with an inspection of definitions of beliefs about language learning (BALL). Lastly, this chapter closes with an examination of prominent studies on language learners'

beliefs and an outline of research approaches to language learning beliefs. This deductive approach is adopted with the aim of facilitating the understanding of beliefs about language learning, whose conceptual frame usually depends on what is understood by beliefs and beliefs about learning.

2.1 EXPLORING BELIEFS

In broad strokes, beliefs are defined by Richardson (1996) as "psychologically held understandings, premises, or propositions about the world that are felt to be true" (p.102). In view of some researchers, beliefs are paradoxical in nature (Dewey, 1983; Izard & Smith, 1982; Pajares, 1992). This view emerges from the fact that the verb *to believe* usually has a double function: sometimes to express doubt or hesitation and others to convey assurance or certainty (Rokeach, 1968).

Literature focused on beliefs suggests that there are theoretical deficiencies in belief research (e.g., Furinghetti & Pehkonen, 2002). Indeed, although the term "belief" has been included in many studies, the concept of belief is often left undefined. A possible reason for the little attention given to theoretical aspects of the concept of beliefs in studies is that it is assumed that this term (belief) is known by the reader (Thompson, 1992). That is possibly why Pajares (1992), refers to beliefs as a "messy" construct, which "travels in disguise"

under different “alias” or “labels” (p. 309). According to Pajares (1992) beliefs " travel in disguise and often under alias-attitudes, values, judgments, axioms, opinions, ideology, perceptions, conceptions, conceptual systems, preconceptions, dispositions, implicit theories, explicit theories, personal theories, internal mental processes, action strategies, rules of practice, practical principles, perspectives, repertories of understanding, and social strategy, to name but a few that can be found in the literature". (p. 309).

The definition of beliefs has often turned around the distinction between the term belief and knowledge (Clandinin & Connelly, 1987; Ernest, 1989; Nespor, 1987; Pajares, 1992; Pratt, 1992; Rokeach, 1968) because these two terms are highly related to each other. In this respect Pajares (1992) points out that “distinguishing knowledge from belief is a daunting undertaking”. (p. 309). Concerning the distinction between beliefs and knowledge, Ernest (1989) considers belief as the affective outcome of thought and knowledge as the cognitive outcome. Likewise, Nespor (1987) states that beliefs contain more affective and evaluative elements than knowledge does. This author also contends that the validity or appropriateness of belief systems, unlike in the case of knowledge, does not depend on group consensus (Nespor, 1987). Explanations of this view are, on the one hand, that knowledge, unlike beliefs, is more open to critical examination and reason and, on the other hand, that beliefs reside more in self-concepts and episodic memory and circumstances (Buchmann & Schwille, 1983; Nespor, 1987).

Despite the abovementioned attempts to make a distinction between beliefs and knowledge, there is no consensus among researchers and theorists about what differentiate beliefs from knowledge. As a consequence, some researchers have decided to operate the concept beliefs according to their research agendas and through broaden models. Woods (1996), for example, devised a network of beliefs, assumptions and knowledge, commonly known as *BAK*, which he operates in an integrated way to study learning beliefs.

So far, from the literature addressed above on beliefs what seems clear is that belief is a "messy" construct, paradoxical in nature, which is highly related to the knowledge construct. Likewise the sensation that remains from the literature on belief is that there are theoretical deficiencies around the term belief. However, when attempting to operationalize this construct in research and in turn "clean up" what belief means, the compilation of 16 fundamental assumptions on beliefs made by Pajares (1992, p. 324-326) is a useful construct. These assumptions are cited below to gain a better understanding of what beliefs are.

1. Beliefs are formed early and tend to self-perpetuate, persevering even against contradictions caused by reason, time, schooling, or experience.

2. Individuals develop a belief system that houses all the beliefs acquired through the process of cultural transmission.

3 The belief system has an adaptive function in helping individuals define and understand the world and themselves.

4. Knowledge and beliefs are inextricably intertwined, but the potent affective, evaluative, and episodic nature of beliefs makes them a filter through which new phenomena are interpreted.

5. Thought processes may well be precursors to and creators of belief, but the filtering effect of belief structures ultimately screens, redefines, distorts, or reshapes subsequent thinking and information processing.

6. Epistemological beliefs play a key role in knowledge interpretation and cognitive monitoring.

7. Beliefs are prioritized according to their connections or relationship to other beliefs or other cognitive and affective structures. Apparent inconsistencies may be explained by exploring the functional connections and centrality of the beliefs.

8. Belief substructures, such as educational beliefs, must be understood in terms of their connections not only to each other but also to other, perhaps more central, beliefs in the system.

9. By their very nature and origin, some beliefs are more incontrovertible than others.

10. The earlier a belief is incorporated into the belief structure, the more difficult it is to alter. Newly acquired beliefs are most vulnerable to change.

11. Belief change during adulthood is a relatively rare phenomenon, the most common cause being a conversion from one authority to another or a gestalt shift. Individuals tend to hold on to beliefs based on incorrect or incomplete knowledge, even after scientifically correct explanations are presented to them.

12. Beliefs are instrumental in defining tasks and selecting the cognitive tools with which to interpret, plan, and make decisions regarding such tasks; hence, they play a critical role in defining behavior and organizing knowledge and information.

13. Beliefs strongly influence perception, but they can be an unreliable guide to the nature of reality.

14. Individuals' beliefs strongly affect their behavior.

15. Beliefs must be inferred, and this inference must take into account the congruence among individuals' belief statements, the intentionality to behave in a predisposed manner, and the behavior related to the belief in question.

16. Beliefs about teaching are well established by the time a student gets to college.

As can be observed in the previous list of characteristics about beliefs, Pajares (1992) not only deals with beliefs in general but also addresses belief systems, the relationship between knowledge and belief, and beliefs about learning and teaching. These 16 assumptions about beliefs emerged from a thorough review of literature on beliefs made by Pajares and therefore they are taken

into account in this study to gain a better understanding of the content of interest of this study: beliefs about English language learning and teaching in the Colombian university context.

Having explored relevant literature on beliefs (in general), it is time to move towardss the literature on beliefs about learning. The following section is devoted for that purpose.

2.2 EXPLORING BELIEFS ABOUT LEARNING

From an educational perspective, **beliefs about learning** (BAL thereafter), which in words of Sakui and Gaies (1999) are "a central construct in every discipline that deals with human behaviour and learning" (p. 474), have been approached as part of affective factors by theorists and researchers. This construct, also referred to as metacognitive knowledge (Wenden, 1999, p. 435), has become the topic of interest for many educational researchers in the last few decades (Dörnyei, 2005; Horwitz, 1985; Sakui & Gaies, 1999; Schommer-Aikins, 2002; Victori & Lockhart, 1995). This interest has been powered by the constructivist approach which supports the idea that the affective factors influence learning because they contribute to building knowledge based on (and filtered by) experience (Dulay & Burt, 1974; Krashen, 1982). Further, since understanding beliefs entails interpreting individuals' subjectivity or individuals' ways of perceiving and understanding

the world (Harvey,1986), the humanistic approach has also contributed to promoting research on beliefs with its endeavors to understand people's subjectivity from a holistic approach, rather than reductionist.

In general, perusal of research on BAL reveals that this construct is highly associated to those with learners' perceived ideas, representations, insights, concepts, assumptions or opinions, (Holec, 1981; Horwitz, 1985; Hosenfeld, 1978; Wenden, 1987). Likewise, the literature review seems to suggest that the term BAL is usually operationalized as a known construct, which does not require further explanation or which can be understood intuitively. Pajares (1992), for example, points out that "It is unavoidable that, for purposes of investigation, beliefs must be inferred" (Pajares, 1992, p. 315). Other researchers, such as Sakui and Gaies (1999), prefer to address beliefs taking into account different definitions or conceptualizations. In this respect Sakui and Gaies (1999) state that their study, "like other studies of learners' beliefs about language learning, was not based on any single definition or conceptualization of beliefs. On the contrary, we wanted to examine as wide a range of beliefs as possible" (p. 477).

In sum, the literature addressed above, along with the literature on beliefs of the previous section, suggests that **beliefs about learning** (BAL) are part of affective factors and deal with learners' and teachers' perceived ideas, representations, assumptions or opinions of human behavior and learning.

Likewise, it is assumed that BAL play a decisive role in learners' success, failure and experiences as well as in teachers' pedagogical attitudes, practices and decisions.

Having explored relevant literature on beliefs (in general), and on **beliefs about learning** it is time to address **beliefs about language learning**. The following section is devoted to that purpose.

2.3 BELIEFS ABOUT LANGUAGE LEARNING

A lack of consensus among researchers for a clear-cut definition of **beliefs about language learning** (BALL thereafter) is evidenced in language literature. Despite such lack of consensus, a myriad of definitions related to BALL are found in the literature. Victori and Lockhart (1995), for instance, define BALL as "general assumptions that students hold about themselves as learners, about factors influencing language learning and about the nature of language teaching" (Victori & Lockhart, 1995, p. 224). Cabaroglu and Roberts (2000) refer to beliefs as "a set of conceptual representations which signify to its holder a reality or given state of affairs of sufficient validity, truth or trustworthiness to warrant reliance upon it as a guide to personal thought and action" (Cabaroglu & Roberts, 2000, p. 388). Huang (1997) defines BALL as "preconceptions language learners have about the task of learning the target language" (p. 29). From these definitions of beliefs Victori and Lockhart's

(1995) conceptualization seems to be more eclectic or all-embracing: it not only considers learners' preconceptions about themselves in the role of learners but also the circumstances that affect language learning and the nature of language teaching.

To shed more light on the understanding of BALL, it may be worth having a look at what Mercer (2011) points out about BALL:

> Each individual learner holds their own unique complex set of self-beliefs, which influence not only the way learners choose to act and the kinds of decisions they make within the present setting, but also how they interpret their past experiences and what kinds of goals and challenges they set themselves for the future… When a learner enters into any language learning or use experience, be that in a classroom or contexts beyond, they do not come to the encounter as a psychologically blank sheet of paper but they bring with them their beliefs about themselves and their attitudes towardss the foreign language, and these both impact on and in turn are influenced by the experience (Mercer, 2011, p.1-2).

From what Mercer (2011) states above it is clear that BALL, as part of affective factors, influence learners' behaviour, motivations, affective reactions, and

attitude and help them interpret the world and their challenges as language learners. This is in congruence with the increasing volume of research (Horwitz, 1999; Sakui & Gaies, 1999; Schommer, 1990) which evidences that "beliefs play a decisive role in language learners' success, failure and experiences" (Rieger, 2009, p.98).

It is adequate to note that within the studies on BALL are learners' beliefs about language learning and teachers' beliefs about language learning. In the area of learners' beliefs about language, which is the issue of interest of this study, the types of BALL could be grouped into two categories: facilitative and inhibitive beliefs. Facilitative beliefs are those which lead to successful language learning. They are seen as realistic, supportive, and positive. In contrast, inhibitive beliefs are those which lead to ineffective learning, because they are unrealistic, unsupportive and negative, and they usually decrease learners' motivation and cause dissatisfaction (Bernat & Gvozdenko, 2005). In words of Bernat and Lloyd (2007), for example, "students can have 'mistaken', uninformed or negative beliefs, which may lead to a reliance on less effective strategies, resulting in a negative attitude towardss learning and autonomy" (p. 79). Concerning language learners' misconceptions about language learning, Bernat (2007, p. 3) states that learners may hold misconceptions about:

• The length of time it takes to learn a foreign language;

• The existence of language aptitude and whether one must possess it in order to acquire a foreign language;

• The usefulness of certain learning strategies such a memorization;

• Whether one should not say anything in English until one can say it correctly;

• Whether learning English is similar to learning other academic subjects; or

•Whether uncorrected grammatical mistakes become fossilized.

On the same vein, Victori and Lockhart (1995) approach the differences between “insightful beliefs”, related to those successful learners hold, and “negative or limited beliefs” corresponding to those poorer learners hold. Along this line of thinking, Mantle-Bromley (1995) states that learners who hold positive attitudes and realistic language-related beliefs usually perform in more productive way when learning than those with *negative attitudes* and *mistaken beliefs*.

Furthermore, learners’ beliefs about language learning (LBALL) have been the focus of interest by many researchers worldwide. Most of the existing studies on LBALL have turned around the beliefs shaping Horwitz’s (1987) Beliefs About Language Learning Inventory (BALLI). In this respect it is pertinent to point out that Horwitz’s (1987) BALLI is the most widespread used language belief instrument. Indeed, a substantial volume of these studies have used Horwitz’s BALLI, one of her versions, or an adaptation, as the research

instrument (Alexander & Dochy, 1995; Ellis, 1994; Kern, 1995; Kuntz, 1996; MacIntyre, 2000; Mantle-Bromley, 1995; Peacock, 1998, 1999; Riley, 1997; Sakui & Gaies,1999; Stern, 1983; Stevick, 1999; Yang, 1992; Young, 1991). Likewise, a myriad of studies have focused on examining different aspects of language learning beliefs, such as the relationship between learners' beliefs and other variables, including attitudes (Cotterall, 1995; Kern, 1995; Mantle-Bromley, 1995), anxiety (Horwitz & Young, 1991; Oh, 1996; Truitt, 1995; Young, 1991), learner strategies (Sato, 2004; Wenden, 1987; Yang, 1992, 1999), language proficiency (Asbjornson, 1999; Huang & Tsai, 2003; Mantle-Bromley, 1995; Peacock, 1999; Wen & Johnson, 1997), students' cultural background (Barcelos, 2000; Cortazzi & Jin, 1996; McCargar, 1993; Riley, 1997; Truitt, 1995; Tumpovsky, 1991; Yang, 1992), gender (Bacon & Finnemann, 1992; Bernat & Lloyd, 2007; Siebert, 2003; Yilmaz, 2009), and readiness for autonomy (Cotterall, 1995, 1999).

An overview of the existing research findings on some of those beliefs is pertinent to be made for the purposes of this study. One of those findings has to do with the LBALL that learning English is very important. For example, in a study undertaken in Colombia by Avella and Camargo (2010), with thirteen university students and fifteen tenth graders high school students, it was found that such participants considered important to learn English. For that study, the researchers administered a questionnaire and a survey. Avella and Camargo's (2010) findings are consistent with the general results of previous studies

overseas (Arenas, 2011; Genç, Kuluşaklı, & Aydın; 2016, Truitt, 1995; Yang, 1999). Given that Arenas' study was undertaken in Colombia and that his findings will be contrasted with those of the current study, a brief description of such study is provided. The study had the objective of determining the relationship between the beliefs held by university students with the existence of high affective filter in learning English as a foreign language. It was undertaken in different places of the country (56 places). The study involved the participation of two groups of university students: one group consisted of 86 subjects, who were administered the Foreign Language Classroom Anxiety Scale (a 33-item individual self-report Likert scale developed by Horwitz et al., (1986) to assess foreign language anxiety) and another group shaped by 14 subjects, who were interviewed. Unfortunately, Arenas (2011) does not present concrete details about the instrument used to interview those participants in his study. As for Arenas' (2011) findings, he only addressed four beliefs that the participants in the study held: children are better at learning English than adults are, English is a very difficult language, it is important to learn English, in English class it is always seen the same topics.

Another LBALL that has often been addressed is that English language is very difficult to learn, as can be seen above in Arenas' (2011) study. Studies on this belief have generally found that English is viewed by learners as a difficult language to learn (Arenas, 2011; Kunt, 1997; Park, 1995; Truitt, 1995; Yang, 1992). Such perception may be due to previous language learning experiences

as well as cultural backgrounds, as it is pointed out by Horwitz (1987, 1988). Indeed, researchers have long claimed that beliefs about language learning are context-specific and learners from different cultures may hold different perceptions about learning a new language (Nikitina, 2006). For example, Learners who have had unsuccessful English language learning experiences are more likely to consider such language as a difficult one. Furthermore, learners who hold realistic and informed beliefs are more likely to be less anxious, have a stronger motivation and a positive attitude towardss language learning.

The belief related to the importance of English grammar instruction has also taken space in many language belief studies. In this respect, there are many studies which have evidenced that, in general, students confer great importance to grammar (Brown, 2009; Davis, 2003; Kern, 1995, Schultz 2001). For instance, Schultz's (2001) study, devoted to examine student and teacher perceptions in regards to the role of explicit grammar instruction and corrective feedback in foreign language learning, revealed that Colombian students, as well as their teachers, were more preferably inclined towards formal teaching of grammar and explicit correction than their American counterparts. For that study, Schultz used a questionnaire and involved, on the one hand, 607 Colombian foreign language (FL) students and 122 of their teachers and, on the other hand, 824 U.S. FL students and 92 teachers. Furthermore, it should be said that the above-mentioned results are opposed to the findings of Truitt

(1995) who found that most of the students in his study believed that grammar and translation are not important. The study was undertaken with 204 university students learning English as a second language in Korea. A plausible explanation to these findings is, as was pointed out earlier, that learners' beliefs about language learning may differ based on their cultural background and past experiences.

Furthermore, one of the LBALL that has received a lot of interest by researchers is that children are better at learning English than adults are, which seems to be a widespread folk belief. Literature on this belief generally reveals that learners often hold this belief (Altan, 2006; Arenas, 2011; Brown, 1994; Gawi, 2012; Johnson 1990; Newport, 1990; Penfield, 1967; Snow, 1993; Taylor & Taylor, 1990; Tercanlioglu, 2005). The belief in question is in line with Lenneberg's (1967) critical period hypothesis, which has been the subject of a long-lasting controversy in linguistic and language acquisition arenas. In broad terms, such hypothesis contents that the first years of life (before the end of the brain lateralization process) is the crucial time for the individuals to acquire a language if such acquisition is performed with adequate stimuli. After that critical period, language acquisition becomes more difficult and effortful, to great extent because the brain loses plasticity after that lapse. This contrasts with studies on the age factor in language learning. For example, Muñoz (2010), in her study developed with Spanish-Catalan bilingual learners from state-funded schools, argues that "the explicit instruction provided by the

classroom favours explicit language learning, at which older learners are superior because of their greater cognitive maturity" (p. 46). Additionally, she highlights that there exist important differences between the naturalistic language learning settings and formal learning contexts or instructed foreign language learning. By the same token, Muñoz (2010) states that "the general opinion concerning the age at which children should begin learning a foreign language in schools is strongly influenced by findings obtained in naturalistic language learning settings" (p. 40). Overall, the above suggests that there is no consensual opinion among language learners that children are better at learning English than adults are and lends support to the call for research aiming at examining whether the belief in question is based on learners' cultural backgrounds.

Another LBALL that has drawn researchers' attention is "English language pronunciation is difficult". Cenoz and Lecumberi's (1999) study carried out in the Basque Country (Spain), reported that the sample of that study, shaped by 86 university students from two linguistic groups (Basque L1 learners and Spanish L1 learners) held the belief that English language pronunciation is a difficult and important skill. Furthermore, on L2 pronunciation, Simon and Taveniers' (2011) study, undertaken with the purpose of exploring learners' beliefs on the learning and teaching of English pronunciation, grammar and vocabulary at tertiary level, showed that the majority of university students of English in Flanders tend to believe that pronunciation is important and useful

for efficient communication. For the study 117 native speakers of Dutch and undergraduate students of English at a Belgian university were asked to fill out a questionnaire probing learners' views and beliefs about language learning. The study also revealed that although the learners believe that incorrect pronunciation can lead to communication breakdown, vocabulary errors hinder communication significantly more than those stemmed from incorrect pronunciation or grammar. Besides, Smit (2002) suggests that university students with a positive attitude towardss pronunciation learning are more likely to have a good performance in pronunciation courses.

Furthermore, the findings from several studies focused on LBALL have shown that language learners generally recognize the importance of listening practices (Bernat, 2004; Feyten, 1991; Sakui & Gaies, 1999; Vandergrift, 1997) in the English learning process, which seems to be congruent with some other studies (Littlewood & Liu, 1996; Yap, 1998) evidencing that learners feel more comfortable with receptive rather than productive activities.

Another LBALL that has been extensively examined is language learning motivation. Theories and taxonomies of motivation in language learning can be traced back in the 1950s, with Gardner and Lambert's Socio-Educational model of language learning, in which motivation was addressed as integrative and instrumental (Gardner & Lambert, 1959). Many studies have reported that

EFL learners hold strong instrumental reasons for language learning rather than integrative reasons (Kunt, 1997; Park, 1995; Truitt 1995; Yang, 1992). Based on this model of motivation some scholars addressed motivation from other perspectives. Deci and Ryan (1985), for example, approach motivation as intrinsic (inside the individual), which is connected to the desire to do something because it is worthwhile, and extrinsic (outside the individual), which is related to a willingness to do something because it leads to some benefits, for example to obtain a good job. In turn, Ellis (1994) distinguished four types of motivation: integrative motivation, which is concerned with the eagerness for learners to become part of a speech community; instrumental motivation, which is associated with the benefits, such as job, that can result when learning a language; resultative motivation, which deals with the relationship between motivation and achievement, and motivation as intrinsic interest (which is concerned with the student's willingness to learn something because it is worthwhile).

In the area of language learning, the study of motivation has turned around three prominent frameworks: the integrative-instrumental motivation dichotomy (Dörnyei, 1990; Kormos, & Csizér, 2008), the intrinsic-extrinsic motivation dichotomy and the distinction between language learning motivation and classroom learning motivation (Gardner, 2007). Furthermore, Gardner (2007) points out that motivation is "a very complex phenomenon with many facets" (p. 10) and therefore, in the field of second and foreign language education, it cannot be measured by one scale (domain or category) or even by three or

four scales. Congruent with Gardner, Dörnyei (2009) asserts that motivation, which is assumed to be a crucial factor in learning a foreign language, is a "hybrid", "multifaceted" concept and that "describing its nature and its core features requires particular care" (p. 118).

Finally, the belief "it is important to know about English-speaking cultures in order to speak English" has been examined worldwide. Several studies have reported that students generally hold such belief (Riley, 2006; Sakui & Gaies, 1999; Tercanlioglu, 2005).

Moving on to the area of teachers' beliefs about language learning, as part of **beliefs about language learning,** Altan (2006) claims that "teachers' beliefs influence their consciousness, teaching attitude, teaching methods and teaching policies. Teachers' beliefs also strongly influence teaching behavior and, finally, learners' development" (p. 45). In turn, Calderhead (1996) identifies five prominent areas in which teachers hold beliefs: 1) beliefs about teaching; 2) beliefs about learners and learning; 3) beliefs about subjects or curriculum; 4) beliefs about learning to teach, and 5) beliefs about the self and the nature of teaching. From a general perspective, the existing studies on language teachers' beliefs could be classified into two groups: teachers' beliefs about teaching and teachers' beliefs about learning (Meirink et al., 2009).

Overall, the last three sections of this chapter have mainly dealt with an exploration of literature on the concepts of beliefs (in general), beliefs about learning, and beliefs about language learning (BALL). In considering the literature reviewed above it is clear that BALL are regarded as part of affective factors that influence learners' behaviour and success, motivations, affective reactions, and attitude.

Furthermore, it is pertinent to highlight that significant efforts have been made to explore the relationship between language learning beliefs and others factors regarded as fundamental to language learners' progress and success, including learning strategies, (Rad, 2010; Dörnyei, 2005; (Abraham & Vann, 1987; Horwitz, 1987, 1988; Yang, 1999), and L2 proficiency (Kim, 2003; Mantle-Bromley, 1995; Peacock, 1999). It should be noted, however, that among the many factors that are widely conceived to affect language learning beliefs four factors, namely gender, English level, socioeconomic stratum, and age variables, have not received due attention. Furthermore, the scarce attention paid to beliefs in relation to these four factors is more evident in Colombia, where this study takes place. For this reason, the current study is an attempt to fill this gap. An overview of relevant studies focused on the abovementioned four factors will be addressed in the following section.

2.3.1 LANGUAGE LEARNING BELIEFS AND THEIR RELATIONSHIP TO GENDER

As for research on beliefs about language learning and their relationship to gender, Daif-Allah (2012) for example, conducted a study in the Kingdom of Saudi Arabia with first-year English language majors studying the Intensive English Language Program at Qassim University. The study dealt with a total of 250 male and female students, who were administered a modified Arabic version of Horwitz's (1987) BALLI (Beliefs about Language Learning Inventory). The findings of that study revealed that there were found no significant differences in responses between males and females in 14 BALLI items, while significant differences were found in the other 20 items. As for the area labeled as *foreign language aptitude*, shaped by nine items, there were significant differences in boys and girls' beliefs in four items. Concretely, girls are more likely than boys to believe that "it is easier for someone who already speaks a foreign language to learn another one", "I have foreign language aptitude", and "women are better than men at learning foreign languages". However, boys are more likely than girls to believe that "people who speak more than one language well are very intelligent". In the other five items shaping this area boys and girls share the same beliefs. With respect to the area labeled as *the difficulty of English language learning,* shaped by six items, Daif-Allah (2012) found significant differences in boys and girls' beliefs in five items. Specifically, girls held a stronger belief than boys that "some languages are easier to learn than others". Also, girls seemed to be more convinced than boys to believe that they will ultimately learn to speak English very well.

However, the boys showed stronger agreement than girls towardss the following three beliefs: “A language learner needs at least four years to learn about the language and use it fluently”, “it is easier to speak than understand a foreign language”, “it is easier to read and write this language than to speak and understand it”. With respect to the area labeled as *the nature of language learning*, with seven items, significant gender differences were found in only three items. Girls’ beliefs towardss the statement that “the structure of English is different from that of Arabic” and the statement that “learning a foreign language is mostly a matter of translating from English” were stronger than those of boys. Nevertheless, boys’ beliefs towardss the statement that “it is better to learn a foreign language in the foreign country” were stronger than those of girls. As for the area known as *learning and communication strategies*, with eight items, the results of Daif-Allah’s (2012) study revealed significant gender differences in five items. Girls showed stronger beliefs towardss four statements than boys: “It is important to speak a foreign language with an excellent pronunciation and accent”, “you shouldn't say anything in the foreign language until you can say it correctly”, “it is important to repeat and practice a lot”, and “it is important to practice in the language laboratory”. Conversely, boys held a stronger belief towardss the statement that “it’s o.k. to guess if you don't know a word in the foreign language”. With reference to the area labeled as *motivation and expectation*, with four items, the study revealed significant gender differences in three items. Girls exhibited stronger beliefs towardss the statements that “Saudis think that it is important to speak a foreign language” and “I would like to learn this language so that I can get to know its speakers

better". Contrarily, boys showed a stronger belief towardss the statement that "if I learn to speak this language very well, it will help me get a good job". Overall, this study evidences that gender variable may exert influence on learners' language learning beliefs.

In the Korean context, Kim (2012) conducted a study to "(1) explore and describe beliefs about English learning of high school students in a Korean EFL context, (2) identify a structural model that best explains the factors associated with English achievement using structural equation modeling (SEM), and (3) examine gender differences in the proposed causal path model." (p. 174). The study counted on a sample of 447 students (253 boys, 194 girls). Kim used a questionnaire containing 26 Likert-scale items, of which 9 items were adapted from Horwitz's (1987, 1988) studies and the other 17 items were developed based on review of previous studies and discussion with Korean high school English teachers and learners. The questionnaire was subjected to an exploratory factor analysis through Principal Axis Factoring with oblique rotation method and five underlying constructs were identified and labeled as *self-efficacy of English learning, importance of grammar learning, role of teacher feedback, importance of accuracy,* and *nature of English learning*. Kim's (2012) study, consistent with Bacon and Finnemann, (1992) and Payne and Lynn (2011), revealed that female participants showed higher average ability than male participants in L2 learning as measured through their beliefs on language learning. Such study also found that learner gender played the role of a moderator variable in L2 achievement. For example, it was found

that for boys the most significant predictor of their L2 achievement was importance of grammar learning, whereas for girls that significant predictor was self-efficacy.

Rieger (2009) investigated the beliefs of 109 first-year BA language majors (54 English majors and 55 German majors), at a university in Budapest by using a modified Hungarian version of Horwitz's (1987) BALLI inventory. The aims of this study were both to investigate whether gender affected learners' beliefs about language learning and to explore whether the target language affected learners' beliefs about language learning. The results showed the existence of significant differences that could be linked to gender and the language studied by the participants. Specifically, Rieger's (2009) study revealed that the target language influenced learners' beliefs about the difficulty of the foreign language they were learning and the importance they granted to some language learning approaches. As to gender, Rieger's (2009) study evidenced statistically significant differences concerning the conferred importance towardss some language learning approaches or techniques.

Bernat and Lloyd (2007) conducted a study to investigate the relationship between beliefs about language learning and gender. They administered Horwitz's Beliefs About Language Learning Inventory (BALLI) to 262 English as a Foreign Language students (155 female and 107 male participants) enrolled in an Academic English Program at an Australian university. For that purpose, the Wilcoxon-Mann-Whitney test was employed. Results of Bernat

and Lloyd's (2007) study revealed that, with the exception of two items, the beliefs about language learning reported by male and female students were overall analogous. These results are consistent with those of of Tercanlioglu (2005), who reported no significant differences in beliefs about language learning among males and females full-time undergraduate EFL teacher trainees at a Turkish university. Her study involved 118 pre-service EFL teachers (45 male and 75 female participants), who were administered the Horwitz's (1987) BALLI. The results of such study emerged from ANOVA procedure.

However, it should be noted that the results of Bernat and Lloyd's (2007) study differ from those of Siebert (2003) and Bacon and Finnemann (1992). Siebert (2003), for instance, also aimed at investigating gender differences regarding beliefs about language learning and her findings presented significant differences. According to Bernat and Lloyd the disparity of findings between the two studies may be due to several factors, including "culture impact on the nature of student responses to belief items" (Bernat & Lloyd, 2007, p. 88) and differences concerning the context or what they called "context specificity" (Bernat & Lloyd, 2007, p. 88). Bacon and Finnemann (1992) examined the impact of gender on learner beliefs, attitudes, strategies and experience, with 938 adult foreign language students and revealed that there were significant differences in beliefs about language learning among males and females language learners. Through discriminant analysis, they found that female participants, unlike male ones, showed a higher level of both motivation and

strategy use in language learning and social interaction with the target language (Spanish), as well as greater use of global strategies in dealing with authentic input.

From all the review above, it can be said that the way gender variable exerts influence on beliefs about language learning sometimes may differ from context to context. Hence, the importance of undertaking the current study in Colombia without extrapolating results from other different contexts. Now, having reviewed studies focused on the relationship between gender variable and beliefs about language learning, it is time to address relevant studies centered on the relationship between beliefs about language learning and socio-economic variable.

2.3.2 LANGUAGE LEARNING BELIEFS AND THEIR RELATIONSHIP TO SOCIO-ECONOMIC STRATUM

To start, it is important to clarify that although there exists considerable research on the relationship between language learning and the socio-economic status variable, the scarcity of research focused on the relationship between language students' beliefs about language learning and their socio-economic stratum is unfortunate. The current study is thought to contribute to filling the gap of research in this area. Having said this, it is important to point out that socio-economic status (SES) has been regarded as a strong predictor

of students' learning (Coleman, 1966; Majoribanks, 1996). Ghani (2003), for example, showed that SES has an overwhelming impact on English learning success in Pakistan. Likewise, it has been observed that SES is a variable that exerts a considerable impact on language learning motivation and beliefs about learning processes (Mantle-Bromley, 1995). Akram and Ghani (2013), in their study aimed at investigating the relationship of socioeconomic status with attitudes and motivation towards learning English, with 240 students of intermediate level in different colleges of Punjab, Pakistan, found that there is statistically significant relationship between learners' SES and their motivation to learn English. Concretely, the results of MANOVA analysis revealed that a) concerning the attitude towards learning English, the higher SES students reported, through a questionnaire administration, a more positive attitude towards English learning, b) as for attitude towards English people higher SES students also reported a more positive attitude than the lower SES students, and c) Both the higher SES and lower SES students showed equal motivational intensity in learning English. The findings of this study are in line with some other studies. For example, Hou's (2015) study, intended to investigate Taiwanese children's English learning motivation/attitude and the impacts of social factors of age, gender and social class on their English learning, with 520 students from 6 elementary schools near Tainan City, revealed that "more children from middle-class homes with better socio-economic had stronger motivation, in particular, integrative orientation, more positive attitude, and favorable motivational intensity." (p. 112).

Ariani and Ghafournia (2015) studied the relationship between Iranian language students' beliefs about language learning and their socio-economic status. The study involved 350 Iranian postgraduate students of Management, doing English courses at Islamic Azad University in Neyshabur. According to their socio-economic status 25 students belonged to upper class, 70 students to upper middle class, 108 students to middle class, 108 students to lower middle class, and 42 were from lower class. The instruments employed in their study were Horwitz' (1987) 35-item Beliefs about Language Learning Inventory (BALLI) and the Socio-economic Status (SES) Scale Questionnaire, developed by the researchers. The data was subjected to statistical analyses, which included Cronbach alpha formula, principal component analysis, and descriptive statistics. In this study, "the findings reflected that students' beliefs and perceptions related to the process of language learning have been connected to their socio-economic status as well" (p.23). Likewise, they content that "social factors exert substantial influence on the process of language learning" (p. 17).

Gayton (2010) investigated the extent to which socio-economic status determines a pupil's language-learning motivation by interviewing eleven high school teachers: four in Scotland, four in Germany and three in France. She found that in those three contexts, the socio-economic status variable was linked to language-learning via a pupil's mobility. Concretely, she evidenced that "mobility helps to motivate pupils in their foreign language study, and mobility is facilitated by having a higher socioeconomic status." (p. 26). The

findings then indicated “a correlation between low socio-economic status and low motivation on the one hand, high socio-economic status and high motivation on the other” (p. 26).

To summarize, by observing the findings of the previous studies on language learning beliefs and their relationship to socio-economic status it is clear that socio-economic status can exert significant influence on learners’ beliefs about language learning.

2.3.3 LANGUAGE LEARNING BELIEFS AND THEIR RELATIONSHIP TO AGE

Although the effects of age on second or foreign language learning have been one of the main topics of interest and debate by researchers and scholars in the field of Second Language Acquisition, little effort has been made to explore the relationship between language learning beliefs and age. With regard to age and second or foreign language learning, for example, there is a widespread belief that the younger the better in second or foreign language learning (Brown, 1994; Johnson, 1990; Newport, 1990). Larsen-Freeman and Long (1991), for instance, state that “older is faster, but younger is better” (p. 155). In turn, Ellis (2003, p. 491-492), based on a thorough review of research on the effect of age on language learning/acquisition, some of them grounded on positive evidence for the Critical Period Hypothesis (CPH), presents five general conclusions on this issue, which are evoked here.

1. “Adult learners have an initial advantage where rate of learning is concerned, particularly grammar. They will eventually be overtaken by child learners who receive enough exposure to the L2. This is less likely to happen in instructional than in naturalistic settings because the critical amount of exposure is usually not available in the former”.

2. “Only child learners are capable of acquiring a native accent in informal learning contexts”.

3. “Children may be more likely to acquire a native grammatical competence…some adult learners, however, may succeed in acquiring native levels of grammatical accuracy in speech and writing and even full ‘linguistic competence’”.

4. “Irrespective of whether native-speaker proficiency is achieved, children are more likely to reach higher levels of attainment in both pronunciation and grammar than adults”.

5. “The process of acquiring an L2 grammar is not substantially affected by age, but that of acquiring pronunciation may be” (Ellis, 2003, p. 491-492).

Furthermore, Gawi (2012) aimed at investigating the effect of age on learning English in Saudi Arabia by surveying two groups of students: the first group consisted of 29 students who study English at Alajial Elementary School (level four); and the second group consisted of 24 students learning English at Alrwad Intermediate School (Grade-3). Gawi posed the following research question in his study: Is there a significant difference between Saudi students who start learning English at age 5/6 as compared with those who do it at age 12/13? To collect the data he administered a 31-item questionnaire, arranged in a 5- Likert Scale Format ranging from strongly agree to strongly disagree, which exhibited a reliability Cronbach's Alpha ranging from between 0.79 and 0.81 and a statistically significant internal validity coefficient (Pearson correlation coefficient at 0.01level). As the result of the study, he found out that "the performance of students who begin learning a foreign language at an earlier age (5/6) is better than those who start later (12/13); the younger students they are, the better they will learn English; and young learners speak English more fluently than adult learners" (Gawi, 2012; p. 129). The part of the study addressing learner beliefs about age revealed that the participants agree on the following three statements: "the young students are much better than the adult ones in acquiring vocabulary; the suitable age to start learning EFL is the age of 5-6; and the performance of students who start learning EFL at the age of 12/13 and have studied the language for four years is weak" (Gawi, 2012, p. 129). These results imply that starting learning a language at earlier age is perceived as a favorable factor in enhancing the communicative skills of English language learners.

In a 2010 study, Fatehi Rad administered the BALLI test to 100 Iranian students of Kerman Azad University, with ages between eighteen and twenty five, in order to both examine their beliefs about learning English language and determine the effects of gender, age, field of study on EFL learners of Kerman Azad University. Based on statistical methods, which included correlation analysis, reliability measures, mean analysis and regression analysis, the study revealed that there was no significant relationship between age and beliefs about learning language in any of the five aspects of language beliefs that the BALLI focuses on.

Indeed, as pointed out earlier, although gaining insights into the relationship between learners' beliefs about language learning and age is essential for planning effective language instruction, when reviewing literature on this variable a scarcity of studies is observed. Despite this fact, it can be concluded that age is another participants' essential characteristic that could potentially influence language learning beliefs and the present study contributes to compensating the scarcity of research in this area.

2.3.4 LANGUAGE LEARNING BELIEFS AND THEIR RELATIONSHIP TO ENGLISH LEVEL

In this study, the variable English level, along with gender, socio-economic stratum and age, is regarded as another participants' fundamental

characteristic that has the potential to influence language learning beliefs. It should be noted that language proficiency has been determined by researchers through different ways, including language achievement tests (Phillips, 1991), self-ratings (Oxford & Nyikos, 1989), language course grades (Mullins, 1992), placement examinations (Mullins, 1992) and years of language study (Watanabe, 1990). As for this study, the participants' language proficiency has been determined based on their language course grades. Furthermore, it is pertinent to point out that there have been very few studies focused on examining the relationship between language learning beliefs and English level to date. Some of these studies are discussed below.

Abdolahzadeh and Nia (2014) investigated statistically significant relationships between Iranian learners' language proficiency levels and their beliefs language learning beliefs. A total of 226 (113 males and 113 females) public school learners participated in the study, who were administered a Persian version of Horwitz's (1987) 34-item Beliefs about Language Learning Inventory (BALLI), and a paper-based version of the Key English Test (KET) to measure their overall English proficiency. The study revealed, through correlation analyses, on the one hand, a positive and significant correlation between language proficiency and beliefs about language learning, and on the other hand, that the participants held strong beliefs concerning the categories motivation and expectation and foreign language aptitude. Concretely, with regard to the correlation between language proficiency and beliefs about language learning they found, through a series of Pearson product-moment

correlation analyses, a positive low correlation (r = .36, n= 221, p=.000, p< .01) between them, indicating that “language proficiency has positive weak correlations with every single one of the constructs of beliefs about language learning.” (p. 25). These results are congruent with the findings of Hong (2006), Abedini, Rahimi and Zare-ee (2011) and Bagherzadeh (2011), but not consistent with those reported by Diab (2000), who did not find a significant correlation between the language proficiency of 284 university students in three universities in Lebanon and their beliefs scores. As for the five categories of beliefs about language learning examined with Horwitz’s (1987) BALLI, Abdolahzadeh and Nia’s (2014) study revealed that “learners had the strongest belief in motivation and expectations, followed by learning and communication strategies and the nature of language learning” (p. 25). The remaining two factors (foreign language aptitude and the difficulty of language learning) exhibited the weakest scores.

The results of Abdolahzadeh and Nia’s (2014) study are consistent with some other previous studies, including those found by Chang and Shen (2010) and Sioson (2011), who found that beliefs of motivation and expectations exhibited the highest scores.

Another study by Wang and Rajprasit (2015) had a threefold aim a) investigating self-reported beliefs about English language learning of low and high proficiency Thai students enrolled in university-level Foundation English courses, b) identifying the most prevalent affirmative beliefs among both

student groups, and c) identifying the similarities and differences in between the beliefs of both low and high proficiency students regarding English language learning. There were a total number of 495 participants divided into two groups: low proficiency students and high proficiency students. The former group consisted of 252 intermediate-level English students and the latter of 243 upper-intermediate level English students. In their study, they used a modified 33-item version of Horwitz's (1987) BALLI as well as a demographic questionnaire. Descriptive statistics, including mean, standard deviation and frequency, were calculated. As for the prevalent affirmative beliefs held by both low-and-high proficiency students, the results revealed that whereas the low-proficiency students reported the belief vocabulary is essential to learning English in the first place, the high-proficiency students reported the belief practice is necessary for learning English to be used in real communicative situations in the first place, indicating that whereas the main concern among low-proficiency students was having a large enough vocabulary, high-proficiency students' main concern was to use the language in real-life situations. Likewise, the results revealed that in 10 items out of 33 the degree of agreement between low and high proficiency students was different. Concretely, whereas the low-proficiency students somewhat agreed with the statements that "they should know at least one foreign language to learn English well" and "learners who are good at Mathematics and Sciences tend to learn English well", the high-proficiency students disagreed with those statements. On the other hand, whereas the low-proficiency students agreed with the statements that "anybody can speak English when they have the

opportunity to use it", "studying in a country where English is spoken as a native language will increase one's ability to learn English and the time to practice it", "practice is necessary for learning English to be used in real communicative situations", "regular practice will help me to learn English better", "listening to native pronunciation from songs or movies will improve my speaking and listening abilities", and "English is essential for postgraduate education" the high-proficiency students strongly agreed with those items. Whereas the low-proficiency students somewhat agreed with the statements that "I can understand English better in comparison to other foreign languages" and "I can speak English better in comparison to other foreign languages" the high-proficiency students agreed with those statements.

In turn, Fujiwara (2014) investigated the beliefs of 532 Thai EFL university students regarding language learning via BALLI's model. His objective was to identify possible significant differences with regard to beliefs about language learning among groups of students at different levels of English proficiency, through statistical analyses of their responses to BALLI, based on five factors that he empirically identified by factor analysis in a previous study, labeled as Learning and communication strategies, Important aspects of language learning, Expectations and difficulty of learning English, Nature and aptitude of language learning, and Difficulty and ability of language learning. Although 3.3% of the students were in the advanced-level classes, 26.9% in the intermediate-level classes, and 69.7% in the elementary-level classes, only the students enrolled in the two lower levels (i.e., the elementary level and

intermediate level) were examined. The results revealed that there was a significant difference between groups of students with different levels of English language proficiency. Such difference was found in two out of the five factors (Factor 2, labeled as important aspects of language learning, which exhibited F (1, 468) = 6.766, p = .010, partial eta squared = .014) and Factor 5, labeled as difficulty and ability of language learning, which presented F (1, 468) = 9.955, p = .002, partial eta squared = .021, with the employment of a Bonferroni adjusted alpha level of .01. These results indicated that learners with a higher proficiency level tended to believe that reading and writing English was easier than speaking and understanding English, a lot of memorization is required in language learning, and that it is useful to use the target language even if the learner is not perfectly ready for that yet. Additionally, this type of learners showed the tendency to deny the importance of grammar, vocabulary learning, and learning how to translate. They also tended to reject the belief that you should not say anything if you cannot say it correctly. These results support the widely accepted idea among researchers (Mori, 1999; Wang & Rajprasit, 2015) that language learners at different proficiency levels (and also at different stages of learning) hold different beliefs about language learning.

Generally, most of the studies reviewed above, focused on exploring the relationship between language learning beliefs and gender, English level, socioeconomic stratum, and age variables, support the widely-held proposition that such learners' beliefs can be affected by their holders' characteristics and

that gaining insights into that phenomenon is fundamental for planning effective language instruction. Likewise, the previous literature review evidenced the scarcity of research in this area, and therefore, endeavors intended to contribute to enhancing the understanding of the role of essential factors such as gender, English level, socioeconomic stratum, and age variables on language learning beliefs are valuable and worthy of undertaking. Hence, the present study constitutes an attempt to contribute to this mission.

Now, after having reviewed some relevant studies on language learning beliefs it is time to outline the main research approaches to language learning beliefs, in order to get a broad panorama of this area.

2.4 RESEARCH APPROACHES TO LANGUAGE LEARNING BELIEFS

A variety of methodological approaches to study language learning beliefs, either language students' or language teachers' beliefs, has been evidenced in the literature in this field. Those approaches have been classified into three broad categories: the normative approach, the metacognitive approach, and the contextual approach (as described by Barcelos, 2000, 2003; Bernat & Gvozdenko, 2005; Johnson, 1992). According to Barcelos (2003), this classification is based on four issues: "according to their definition of beliefs, methodology, relationship between beliefs and actions, and advantages and disadvantages" (p. 11).

The normative approach is characterized by considering students' beliefs about language learning (SBALL) as "preconceived notions", which are commonly seen as erroneous, wrong or false. In contrast, scholars' beliefs are viewed as right and true ideas or opinions (Barcelos, 2003). With regard to the characterizing methodology of this approach, data collection is mainly done through Likert-type questionnaires or inventories, being Horwitz's *Beliefs About Language Learning Inventory* (BALLI) one of the most common employed instrument under this approach. Two of the main contributions that are attributed to the studies under this approach are: the systematic description and classification of the beliefs about language learning and the provision of assumptions about how students' beliefs about language learning may influence students' performance in classrooms. As for the advantages and disadvantages observed to this approach, it is said that although questionnaires are very practical to collect data in relative short time, even with very big samples, studies under this framework usually present both: "lack of observation of students' actions" and shortage of devices to guarantee "consistent interpretations by the respondents". Likewise, it is observed as a disadvantage that data collection instruments, such as questionnaires, limit respondents' answers and impede the articulation of their metacognitive knowledge (Kalaja, 1995; Pajares, 1992; Riley, 1997).

The second theoretical and methodological framework for the study of beliefs about language learning is the metacognitive approach. Within this approach, beliefs are viewed as subjective knowledge which is characterized by being "individual", "relatively stable", and commonly accepted without question (Alexander & Dochy, 1995; Wenden, 1987, 1999). Under this framework, beliefs are also seen as a subset of metacognitive knowledge (Wenden, 1999), which may help students become autonomous in their learning process. In line with this perspective, beliefs and actions are highly related to language learning strategies (Barcelos, 2006). However, although within this approach, beliefs are viewed as a subset of metacognitive knowledge, some authors, such as Wenden (1999), underline that metacognitive knowledge is, unlike beliefs, an understanding characterized by being factual, objective, and usually acquired in formal settings. As for the resources to collect data, research under the metacognitive approach is highlighted by the use semi-structured interviews (interviews with a set of questions which allow the interviewee to divert and bring up new ideas during the interview are open and self-reports questionnaires). Consequently, the most common data analysis procedure is through an interpretive paradigm (content analysis). One of the advantages attributed to this approach is, in words of Barcelos, that "the use of interviews gives learners the opportunity to elaborate and reflect on their experience" (Barcelos, 2003, p. 19). Another is related to the insights gained about learners' metacognitive knowledge regarding *self-directed learning*. Essentially, *self-directed learning* is conceived as any study activity in which learners hold primary responsibility for planning, directing or monitoring, and even evaluating

their learning process. As for the limitations of this approach, it is said that its framework only offers the possibility to determine beliefs from intentions and statements, and not from actions.

The third research approach for the study of beliefs about language learning (BALL) is the contextual approach. The studies corresponding to this approach are relatively recent and are viewed as heterogeneous because they analyze beliefs from diverse perspectives. An outstanding feature of these studies is that they employ diverse data collection techniques and instruments, including ethnographic classroom observation (Barcelos, 2000), metaphor analysis (Ellis, 2001), diaries (Nunan, 2000), case study (Allen, 1996), discourse analysis (Kalaja, 1995; Riley, 1997), and phenomenography (White, 1999). Within this approach, beliefs, sometimes labeled as “representations” (Riley, 1997), are seen as dynamic, contextual and social entities (Goodwin & Duranti, 1992). Likewise, the nature of students’ beliefs is understood according to students’ context and experience, since BALL are “embedded in student contexts” (Bernat & Gvozdenko, 2005, p. 6). When observing the relationship between beliefs and actions, it is concluded that within this approach knowledge is situated, therefore, the contexts in which the learning process takes place are of paramount importance to the investigation of BALL. As for the advantages of this approach, it is seen as a positive fact of this framework to present a naturalist-ecological and emic perspective of beliefs, and the social and dynamic nature of learners’ beliefs and their environment. Indeed,

this approach, unlike the normative and the metacognitive approaches, is acknowledged the merit of contributing to the study of BALL by considering the context as an important element to the investigation of learners' beliefs. In addition, this approach is credited with contributing to proposing more and varied methods to examine BALL. However, one of the limitations of the normative approach is the time consuming process required at the time of applying methods, such as classroom observation or discourse analysis, to investigate BALL.

Summarizing the above, each one of the three broad BALL research approaches, identified in language literature - commonly known as the normative approach, the metacognitive approach, and the contextual approach - presents important contributions and limitations to the study of BALL in its methodological framework. Concretely, the normative approach, widely recognized by the use of Likert type questionnaires to explore beliefs, is positively acknowledged by both the use of a practical method to collect data in relative short time and the provision of description and classification of the SBALL, but criticized by the scarcity of observation about learners' performance and lack of devices to warrant respondents' consistent interpretations. In turn, the metacognitive approach, characterized by inferring beliefs through the use of self-reports and interviews, is acknowledged by contributing in this area with insights about learners' metacognitive knowledge and ways of helping learners become more autonomous and reflect on their

learning experience. Nevertheless, this approach is questioned by the lack of endeavors to examine how context affects learners' beliefs. Finally, the contextual approach stood out by drawing on different tools and methods for data analysis, and is positively referenced by taking into account the context as an important factor to the investigation of learners' beliefs, as well as the social and dynamic nature of beliefs, but sometimes problematized due to the time consuming endeavor needed through its methods to examine students' beliefs about language learning (SBALL).

When analyzing the characteristics of the three broad BALL research approaches described above it can be said that this study corresponds to the normative approach because the study is designed to provide a systematic description of Colombian university students' beliefs about English language teaching and learning, through a Likert-type questionnaire or inventory (an instrument called Colombian Beliefs About Language Teaching and Learning Inventory – COBALTALI –).

CHAPTER SUMMARY

This chapter was devoted to review the most relevant literature for this study. It first focused on *beliefs*, a term with theoretical deficiencies, that is paradoxical

in nature, and that is related to the term *knowledge* (Dewey, 1983; Izard & Smith, 1982; Pajares, 1992). The chapter then explored relevant definitions of *beliefs about learning* (BAL), which are regarded as part of affective factors and deal with learners' and teachers' perceived ideas, representations, assumptions or opinions of human behavior and learning. This literature review evidenced that BAL play a decisive role in learners' success, failure and experiences as well as in teachers' pedagogical attitudes, practices and decisions. After that the chapter focused on how literature has addressed beliefs about language learning (BALL). The literature reviewed evidenced that BALL are related to assumptions, ideas or preconceptions that language learners and teachers hold about themselves, about aspects or elements that influence language learning, and about the nature of language teaching (Victori & Lockhart, 1995). Finally, this chapter ended up with a review of some prominent studies on how age, English level, socioeconomic stratum, and gender variables affect language learners' beliefs and an outline of research approaches to language learning beliefs. Fundamentally, three broad methodological approaches were addressed: the normative approach, the metacognitive approach, and the contextual approach (Barcelos, 2000, 2006; Bernat & Gvozdenko, 2005; Johnson, 1992). Evidently, the literature reviewed in this chapter dealt with one of the main objectives of this study: to explore beliefs about English language learning. However, literature on the development of research instruments, which is another important issue in this study, has not been addressed yet. It is recalled that this study also pursue to develop and validate an inventory which allows researchers to collect data to

examine beliefs university students hold about English language teaching and learning. Thereby, the following chapter is dedicated to deal with theoretical and conceptual frameworks that can contribute to the development of the target instrument of this study: the Colombian Beliefs about Language Learning and Teaching Inventory (COBALTALI).

CHAPTER 3. DEVELOPING MEASUREMENT INSTRUMENTS IN EDUCATIONAL RESEARCH

"In the most profound sense research simply means trying to find answers to questions" (Dörnyei, 2007:15)

CHAPTER OVERVIEW

The previous chapter was devoted to review literature on beliefs relevant to this study. This chapter is intended to address relevant themes and issues associated with research methods in language learning and standards and guidelines relevant to the development and evaluation of measurement instruments in education. First, background of research traditions and research methods in the field of applied linguistics are addressed. Then, quality criteria and standards in quantitative research are explored. After that, the chapter focuses on addressing quality criteria and standards in qualitative research. Finally, the chapter presents a broad overview of validity, which includes an outline of content validity, methods of content validation, quantitative approaches in content validation, criterion-related validity, construct validity, methods of measuring construct validity, and factor analysis.

3.1 RESEARCH TRADITIONS AND RESEARCH METHODS IN THE FIELD OF APPLIED LINGUISTICS

Within applied linguistics, research could be defined in broad terms as "any systematic and principled inquiry" (Brown, 2004, p. 478). Research in language learning has commonly been addressed in terms of the traditional distinction between qualitative and quantitative (Dörnyei, 2007). In this respect, Byram (2000) highlights that "in language learning, it seems clear that at present the two traditions will continue to co-exist, and that both will add to our increasingly sophisticated understanding of the complex psychological and sociolinguistic factors at play in language learning and teaching" (p. 748). Note, however, that another research approach, namely the mixed methods research (also known as multitrait-multimethod research, interrelating qualitative and quantitative data, methodological triangulation, multimethodological research, and mixed model studies), has been introduced in the last few decades (Dörnyei, 2007). This approach involves incorporation of both qualitative and quantitative research, either at the data collection or at the analysis levels, within a single research project. With regard to this approach Dörnyei (2007) points out that "this is a new and vigorously growing branch of research methodology, involving the combined use of qualitative and quantitative methods with the hope of offering the best of both worlds" (p. 20).

For a better understanding of the main research approaches in language learning, an examination of what lies at the heart of the qualitative-quantitative, and mixed methods research is briefly made.

Concerning the distinction between qualitative and quantitative research, Nunan (1992), in a literature review on this issue, points out that "those who draw a distinction suggest that quantitative research is obtrusive and controlled, objective, generalizable, outcome oriented, and assumes the existence of 'facts' which are somehow external to and independent of the observer or researcher. Qualitative research, on the other hand, assumes that all knowledge is relative, that there is a subjective element to all knowledge and research, and that holistic and ungeneralisable studies are justifiable" (p. 3). The distinction between qualitative and quantitative research is clearly illustrated in Table 1 (taken from Nunan, 1992).

Table 1. Distinction between qualitative and quantitative research

Qualitative research	Quantitative research
Advocates use of qualitative methods	**Advocates use of quantitative methods**
Concerned with understanding human behavior from the actor's own frame of reference	Seeks facts or causes of social phenomena without regard to the subjective states of the individuals
Naturalistic and controlled observation	Obtrusive and controlled measurement
Subjective	Objective

Close to the data: the 'insider' perspective	Removed from the data: the 'outsider' perspective
Grounded discovery-oriented, exploratory, expansionist, descriptive, and inductive	Ungrounded, verification-oriented, confirmatory, reductionist, inferential, and hypothetical-deductive
Process-oriented	Outcome-oriented
Valid: 'real', 'rich', and 'deep' data Ungeneralisable: single case studies Assumes a dynamic reality	Reliable: 'hard' and replicable data Generalisable: multiple case studies Assumes a stable reality

The distinction between qualitative and quantitative approaches to research has been criticized by writers on research (Dörnyei, 2007; Grotjahn, 1987; Nunan, 1992). Nunan (1992), for example, argues that such distinction is "simplistic" and "naive". Further, Brown (2004, p. 488) presents a list of seven problems when addressing research in terms of a qualitative versus quantitative approach.

1. Dichotomizing qualitative versus quantitative research leaves out altogether secondary research types like literature reviews.

2. It treats as monolithic at least seven very distinct qualitative research *techniques* (case study research; introspection research; discourse analysis research; interactional analysis research; classroom observation research; interviews; and questionnaires).

3 It represents as monolithic at least ten qualitative research *traditions* that come from a variety of other fields like anthropology and theology

4 It presents as monolithic at least six very different quantitative research techniques (interviews; questionnaires; descriptive; exploratory; quasi-experimental; and experimental).

5 It ignores the way survey research, including interviews and questionnaires, is both qualitative and quantitative.

6 It ignores the ways researchers often combine qualitative and quantitative research techniques.

7 It confuses *research methods* (interpretive, survey, and statistical) and *research techniques* (like those listed in the second and fourth points above).

Based on these aforementioned problems, Brown (2004) suggests to address these two research traditions (quantitative research and qualitative research) as a *qual–quant research continuum (*view shared by Newman & Benz, 1998), *"my view of quantitative and qualitative methodologies as a continuum…* as matter of degrees, a continuum, rather than a clear-cut dichotomy" (p. 488). Continuum for him is *interactive*, and *interactive* means "they can act together in all possible combinations to varying degrees" (Brown, 2004, p. 489). Thus, viewing quantitative research and qualitative research as interactive, rather

than dichotomous or incompatible is, according to Brown (2004) "a more constructive and accurate approach" (p.488).

On the same vein, Grotjahn (1987), in an attempt to avoid treating research from a dichotomous quantitative versus qualitative perspective, proposed to interact or combine three dimensions or aspects of research: data collection method, resulting data type, and type of data analysis. The first dimension -the method of data collection - refers to whether the data have been collected experimentally or non-experimentally; the second dimension - the type of data produced through the investigation - indicates whether it is qualitative or quantitative, and the third dimension - the type of analysis performed to the data- sets out whether such analysis is statistical or interpretative.

By the same token, Grotjahn (1987) states that there are two 'pure' paradigms, the 'analytical-nomological', characterized by the collection of quantitative data experimentally and the performance of statistical analysis to that data, and the 'exploratory-interpretative', identified by the collection of qualitative data non-experimentally and the performance of interpretative analysis to the data. In addition, this author highlights the existence of hybrid paradigms (mixed forms), resulting from mixing and matching different variables. These 'pure' and mixed paradigms are illustrated in Table 2, (from Grotjahn and cited in Nunan 1992, p. 6).

Table 2. Types of research design

PURE AND MIXED PARADIGMS
PURE FORMS
Paradigm 1: exploratory-interpretive 1 non-experimental design 2 qualitative data 3 interpretive analysis
Paradigm 2: analytical-nomological 1 experimental or quasi-experimental design 2 quantitative data 3 statistical analysis
MIXED FORMS
Paradigm 3: experimental-qualitative interpretative 1 experimental or quasi-experimental design 2 qualitative data 3 interpretive analysis
Paradigm 4: experimental-qualitative-statistical 1 experimental or quasi-experimental design 2 qualitative data 3 statistical analysis
Paradigm 5: exploratory-qualitative-statistical 1 non-experimental design 2 quantitative data 3 statistical analysis
Paradigm 7: exploratory-quantitative-interpretive 1 non-experimental design 2 quantitative data 3 interpretive analysis
Paradigm 8: experimental-quantitative-interpretive 1 experimental or quasi-experimental design 2 quantitative data 3 interpretive analysis

To sum up, Grotjahn's (1987) previous classification of types of research design, cited in Nunan (1992), clearly shows that research can be classified in terms of three domains: *data collection methods* (i.e., experimental vs. non-experimental), *data types* (i.e., qualitative vs. quantitative), and *data analysis procedures* (statistical vs. interpretive). It also shows that two 'pure' paradigms and six mixed paradigms can emerge in analyzing actual research studies. By the same token, Grotjahn (1987) criticizes research traditions, in which the qualitative-quantitative distinction is the cornerstone, since, for him, this distinction is crude and oversimplified.

Later on, Brown (2004), based on Grotjahn's (1987) work, shows 12 characteristics that can interact in primary research (primary research is viewed as the one derived from original data of some sort). These characteristics are data type (qualitative or quantitative), data collection methods (non-experimental or experimental), data analysis methods (interpretive or statistical), intrusiveness (nonintervention or high intervention), selectivity (non-selective or highly selective, variable description (variable definition or variable operationalization), theory generation (hypothesis forming or hypothesis testing), reasoning (inductive or deductive), context (natural or controlled), time orientation (longitudinal or cross-sectional), participants (small sample size or large sample size), and perspective (emic or etic). Brown's (2004) approach to research is based on what Newman and Benz (1998) called the *qual-quant continuum* (qualitative-quantitative continuum). In addition, it is pertinent to highlight here that the 12 aforementioned

characteristics are, according to Brown (2004), within three general primary research methodologies: interpretive, survey, and statistical. The interpretive research methodology includes case studies, introspection, discourse analysis, interactional analysis, and classroom observation; the survey research methodology includes survey and questionnaires; and the statistical one comprises descriptive, exploratory, quasi-experimental, and experimental.

From the previous panorama of the main research approaches in applied linguistics, it is clear that research in this field has been characterized by the research traditions in which the qualitative-quantitative distinction is the cornerstone. Likewise, it is evident that in the last few years research in applied linguistics has not only turned around qualitative or quantitative approaches, but also around mixed methods research, which has gained a growing popularity. Those who advocate for the use of mixed methods research suggest that "the strengths of one method can be utilized to overcome the weaknesses of another method used in the study" (Dörnyei, 2007, p. 45). In this respect, it may be pertinent to anticipate that this study also draws on mixed methods research for its purposes, as a strategy to gain a better understanding of the meaning and implications of the findings and improve the validity of the results. Having said this, it is now time to move towardss quality criteria and standards to judge the soundness of research.

3.2 QUALITY CRITERIA AND STANDARDS FOR RESEARCH

Researchers use a series of criteria and standards to judge the soundness of their research. However, as Dörnyei (2007) rightly points out "when it comes to specifying the concrete 'quality criteria' to be applied, the literature is characterized by a host of parallel or alternative views and very little consensus" (p. 48-49). Despite this lack of consensus, researchers have usually adopted best-known relevant concepts to assess and document the legitimacy of the findings. Thus, whereas in qualitative research, the standards usually held up in judging the soundness of research are concerning the concepts of dependability, confirmability, credibility, and transferability, in quantitative research the concepts are reliability, replicability, generalizability, and validity, (Brown, 2004; Dörnyei, 2007). A brief look at these concepts would be useful for the purpose of this study.

3.2.1 KEY CONCEPTS AS QUALITY CRITERIA IN QUANTITATIVE RESEARCH

As discussed earlier, in judging the soundness of research, advocates of quantitative research draw on the concepts of reliability, replicability, generalizability, and validity, (Brown, 2004; Dörnyei, 2007). In fact, the present study draws on two of these concepts (reliability and validity) to judge its findings and the psychometric properties of the instrument intended to be

developed (the COBALTALI). These four concepts have "parallel criteria" or correspondences in qualitative research (Brown, 2004; Morrow, 2005). That is, reliability parallels with dependability, replicability (also called objectivity) parallels with confirmability, generalizability (also called external validity) parallels with transferability, and validity (also called internal validity) parallels with credibility. Table 3 (summarized from Brown, 2004) illustrates the parallel criteria or correspondences between the quantitative and qualitative research approaches.

Table 3. Standards for Judging of quantitative and qualitative research

Research Standards		
Quantitative Research		**Qualitative Research**
Reliability	Parallel criteria or correspondences	Dependability
Validity		Credibility
Replicability (or objectivity)		Confirmability
Generalizabitity		Transferability

As the previous table illustrates, the advocates of quantitative research draw on a series of criteria (concepts, criteria, and standards are terms used interchangeably in this section) to judge the soundness or quality of their research, which are comparable (or highly linked) to those used by the

advocates of qualitative research in judging the soundness of their qualitative research. Now, a more detail overview of the standards of quality used in quantitative research will be presented to situate the present study.

Reliability is often defined as the degree to which a measurement instrument produces stable and consistent results. Consequently, a measurement instrument that does not yield stable and consistent results (reliable scores) does not permit valid interpretations. Reliability, which in research refers to "repeatability" or "consistency", cannot be calculated (or computed) but estimated, because the variance of the true scores cannot be calculated but estimated[2]. The major reliability estimates are four: 1) Inter-Rater or Inter-Observer Reliability, 2) Test-Retest Reliability, 3) Parallel-Forms Reliability, and 4) Internal Consistency Reliability. Inter-Rater or Inter-Observer Reliability is used to assess the degree to which different raters/observers yield consistent estimates of the same phenomenon. Test-Retest Reliability is used to assess the consistency of a measure from Time 1 to Time 2. The scores from Time 1 and Time 2 are correlated to assess the test for stability over time. Parallel-Forms Reliability (alternate forms) is used to assess the consistency of the results of two measurement instruments (or different versions of one measurement instrument) constructed in the same way from the same content domain. The last type of estimate, Internal Consistency Reliability, is used to assess the consistency of results across items that probe the same construct

[2] According to the theory of reliability the *x* score is observed but not the true or the error scores. The true scores as well as the error scores can be estimated by means of different reliability estimators

within a test. There are a wide array of internal consistency measures, including *Average Item-total Correlation, Split-Half Reliability,* and *Cronbach's Alpha* (α). It seems that the most widely employed method to estimate internal consistency reliability is Cronbach's Alpha.

To end with the first standard of quantitative research, it is important to observe two issues. The first one is that reliability "is a property of the scores on a test for a particular population of test takers" (Dörnyei, 2007, p. 50). It means that reliability concerns the scores on a test not the measuring instrument as reliable or unreliable. The second is that the values for reliability coefficients range from 0 to 1.0., in which 0 means no reliability and 1.0 means perfect reliability. However, since all measuring instruments have some error, it is impossible to obtain reliability coefficients reaching 1.0.

Replicability. The standard of replicability in quantitative research refers to the extent to which a re-study - study replicated- yields the same (repeats) findings of an initial study (Brown, 2004). Consequently, to make a replicable study feasible, it is required the provision of sufficient information about the first study, including details about the participants, the instrument used, and the research procedures.

Generalizability. The standard of generalizability in quantitative research, as Brown (2004) clearly points out "requires researchers to show the degree to

which the results of a study can justifiably be generalized or applied to a larger population or to other similar groups" (p. 493). Traditionally, generalizability is a synonym for external validity and refers to the extension of research findings from a study conducted on a sample of a population to a broader population (Babbie, 1995). This standard of quality has been addressed from a variety of frameworks in both quantitative research and qualitative research (Firestone, 1993; Lincoln & Guba, 1985; Znaniecki, 1934). Firestone (1993), for example, in a seminal article, developed a typology consisting of three models of generalizability: *statistical generalization, analytic generalization*, and *case-to-case translation*. *Statistical generalization*, in words of Yin (2003) occurs when "an inference is made about a population (or universe) on the basis of empirical data collected about a sample (Yin, 2003, p. 32). *Analytic generalization* is described as occurring when attempts are made to link findings from a phenomenon being studied to a theory. *Case-to-case translation* involves the use of findings from a study to a completely different population or setting. Firestone's (1993) model of generalizability is nourished by the widely accepted view among researchers that there are two main types of generalization: statistical generalization and analytic generalization.

Validity. The standard of validity in quantitative research, which is often defined as the extent to which an instrument measures what it purports to measure, has been addressed differently over the last decades. For sake of illustration, the Standards for Educational and Psychological Testing (American Educational Research Association [AERA], American Psychological

Association [APA], & National Council on Measurement in Education [NCME], 1999), as Table 4 shows (table taken from Sireci & Padilla, 2014), has presented different descriptions of validity.

Table 4. Descriptions of validity

Evolution of validity in the Standards	
Publication	**Validity classifications**
Technical recommendations for psychological tests and diagnostic techniques: A preliminary proposal (APA,1952)	Categories: predictive, status, content, congruent
Technical recommendations for psychological tests and diagnostic techniques (APA, 1954)	Types: construct, concurrent, predictive, content
Standards for educational and psychological tests and manuals (APA, 1966)	Types: criterion-related, construct-related, content-related
Standards for educational and psychological tests (APA, AERA, & NCME, 1974)	Aspects: criterion-related, construct-related, content-related
Standards for educational and psychological testing (AERA, APA, & NCME, 1985)	Categories: criterion-related, construct-related, content-related
Standards for educational and psychological testing (AERA, APA, & NCME, 1999)	Sources of evidence: content, response processes, internal structure, relations to other variables, consequences of testing

According to Chapelle (1999), cited in Dörnyei (2007), in applied linguistics the concept of validity was addressed in the 1960s as a property or characteristic of a language measuring instrument. Three main types of validity emerged in

that time: 'criterion validity', 'content validity', and 'construct validity'. In words of Dörnyei (2007), "'criterion validity' was defined by the test's correlation with another, similar instrument, 'content validity' concerned expert judgment about test content; and 'construct validity showed how the test results conformed to a theory of which the target construct was a part" (p. 51).

Further on, in 1985, these three types of validities were taken as a unitary concept by the principal international guidelines for educational and psychological measurement supported by the American Educational Research Association (AERA), the American Psychological Association (APA), and the National Council on Measurement in Education (NCME) Standards for Educational and Psychological Testing (AERA, APA, & NCME 1999). The new unitary view of validity, given after 1985, helped both address this standard not as a property or characteristic of a measuring instrument itself, but instead, as a quality of the interpretations concerning the test scores, and take on reliability as one type of validity evidence.

The four key points provided by Bachman (2004) cited in Dörnyei (2007, p. 52) should be considered here to have a better understanding of validity.

- Validity is the quality of the interpretations and not of the test or the test scores.

- Perfect validity can never be proven--the best we can do is provide evidence that our validity argument is more plausible than other potential competing interpretations.
- Validity is specific to a particular situation and is not automatically transferable to others.
- Validity is a unitary concept that can be supported with many different types of evidence.

The above lends support to the contemporary approach to validity that suggests that all validity should be addressed under one overarching framework "construct validity". It implies that the other two main types of evidence of validity, content-and criterion-related validity, contribute to the evidence of what is currently known as construct validity.

In the context of construct validity, a *construct* is "a psychological quality such as intelligence, proficiency, motivation, or aptitude that we cannot directly observe but that we assume to exist in order to explain behavior we can observe..." (Nunan, 1992, p.15). Thus, defining the constructs under investigation by the researcher, in a comprehensive way for an outside observer, is of paramount importance when attempting to evidence construct validity, as it was pointed out in chapter 4.

In view of the fact that the standard of validity in quantitative research plays an important role when judging the soundness of quantitative research, which is the case in the present study, a broader overview of this standard (validity) is presented.

3.3 A BROAD OVERVIEW OF VALIDITY

Validity is considered as a key concept of quality criteria in quantitative research and in turn a key concept in this study, which aims at developing a language belief research instrument with validity properties (referred to as the COBALTALI). As noted earlier, there has been a shift towards a unified theory of validity in which all types of validity – content validity, criterion-related validity, and construct validity – are subsumed by construct validity (Guion, 1980). Despite this shift, there seems to be a trend in rigorous studies, dealing with research instrument validity, to clarify which of these three aforementioned types of validity such studies performe. In fact, when dealing with the validity assessment of the COBALTALI, the researcher in this study inclined to clarify which of these three types validity he was performing (content validity and construct validity). This decision was made to avoid confusion in those who still embrace the distinction among content validity, criterion-related validity, and construct validity. In view of the above, it seems worthwhile to further address these three main types of validity evidence.

3.3.1 *CONTENT VALIDITY*

Numerous definitions of content validity are found in the literature on validity of measurement. Polit and Beck (2006), for instance report three definitions provided by scholars: (1) ‘‘. . .the degree to which an instrument has an appropriate sample of items for the construct being measured’’ (Polit & Beck, 2004, p. 423); (2) ‘‘. . .whether or not the items sampled for inclusion on the tool adequately represent the domain of content addressed by the instrument’’ (Waltz, Strickland, & Lenz, 2005, p. 155); and (3) ‘‘. . .the extent to which an instrument adequately samples the research domain of interest when attempting to measure phenomena’’ (Wynd, Schmidt, & Schaefer, 2003, p. 509). With the same purpose, content validity is defined by Haynes, Richard, and Kubany (1995) as “the degree to which elements of an assessment instrument are relevant to and representative of the targeted construct for a particular assessment purpose (p. 238)”. From these definitions it can be inferred that content validity concerns the extent to which a sample of items, comprising an assessment instrument (measuring instruments such as questionnaires, tests and inventories), adequately constitute an operational definition of a construct addressed by the instrument.

It is important to observe that content validity deals with features of a measuring instrument (tests, questionnaires, inventories) not the scores. Indeed, content validity inferences about a measuring instrument emerge from its process of construction, before the scores are obtained. Furthermore,

content validity evidence, as Delgado-Rico, Carretero-Dios and Ruch (2012) point out "not only helps conceptually define the construct of interest but also lays the bases for a correct explanation of the variance in the scores obtained" (p. 451).

In order to estimate the degree to which a sample of items represents an adequate operational definition of the construct of interest (content validity), measuring instrument specialists draw on two concepts to form a basic conceptual structure: *representativeness* and *relevance* (American Psychological Association [APA], American Educational Research Association [AERA], and National Council on Measurement in Education [NCME], 1954/1999). In words of Haynes, Richard, and Kubany (1995) "the relevance of an assessment instrument refers to the appropriateness of its elements for the targeted construct and function of assessment" (p. 2-3), and "the representativeness of an assessment instrument refers to the degree to which its elements are proportional to the facets of the targeted construct" (p. 3).

3.3.1.1. METHODS OF CONTENT VALIDATION

The methods to estimate content validity are varied. In this respect, Haynes, Richard and Kubany, (1995) point out that "content validation is a multimethod, quantitative and qualitative process that is applicable to all elements of an assessment instrument. During initial instrument development, the purpose of

content validation is to minimize potential error variance associated with an assessment instrument and to increase the probability of obtaining supportive construct validity indices in later studies. Because sources of error vary with the targeted construct, the method of assessment, and the function of assessment, the methods of content validation will also vary across these dimensions" (p. 10). Although content validity can be estimated from quantitative or qualitative frameworks, as Haynes, Richard and Kubany (1995) clearly noted above, it is also clear from the literature on measuring instrument development that "content validity is largely a matter of judgment, involving two distinct phases: a priori efforts by the scale developer to enhance content validity through careful conceptualization and domain analysis prior to item generation, and a posteriori efforts to evaluate the relevance of the scale's content through expert assessment" (Polit & Beck, 2006, p. 490). In regards to these two phases identified by Polit and Beck (2006), in the literature on instrument (or scale) development there are several useful guidelines to define the domain and facets of the target construct and subject them to content validation through expert assessment (Crocker & Algina, 1986; DeVellis, 1991; Haynes *et al*., 1995; Osterlind, 1989). Crocker and Algina (1986), for instance, identify the following steps for content validation: "1.) Defining the performance domain of interest; 2.) Selecting a panel of qualified experts in the content domain; 3.) Providing a structured framework for the process of matching items to the performance domain; and, 4.) Collecting and summarizing the data from the matching process " (p. 218).

By far, the primary non-statistical method used to determine whether a measuring instrument exhibits content validity is expert judgment (also known as subjective judgment). This method is generally understood as a process whereby a panel of informed experts express an opinion or estimate of something based on intuition and the expertise held in the domain of content. An explanation for this method to be the most common used in content validation is rightly provided by Kimberlin and Winterstein (2008) "because there is no statistical test to determine whether a measure adequately covers a content area or adequately represents a construct, content validity usually depends on the judgment of experts in the field" (p. 2279). However, the expert judgment method is usually complemented by researchers with quantitative analysis to minimize inherent biases of expert judgment method. In order to avoid this bias, the present study draws on expert judgment and complemented by quantitative analysis (factor analysis).

A common procedure for content experts to judge content validity is to rate the degree to which the item fits the domain based on the dimensions of relevance, representativeness, specificity, and clarity (Haynes, Richard, & Kubany, 1995). The quantification of expert judgments are usually performed through the use of Likert-scales (a method of ascribing quantitative value to qualitative data) rating sheets which can then be subjected to descriptive and inferential statistical analyses. In this respect, a typical step is to ask experts to rate the relevance of each item, usually on a 4-point scale such as: 1 = not relevant, 2 = somewhat relevant, 3= quite relevant, and 4 = very relevant. The

four ordinal response options (Likert-scale) are then represented by two dichotomous categories such as relevant and not relevant (Lynn, 1986).

From the above, it is clear that content validity, which is an essential type of construct validity and an essential step in the development of new measurement instruments, concerning item sampling adequacy, is commonly estimated non statistically though expert judgment. It is also clear that the expert judgment method is usually complemented with quantitative analysis. It seems, then, worthwhile to further discuss quantitative techniques or approaches in content validation.

3.3.1.2. QUANTITATIVE APPROACHES IN CONTENT VALIDATION

Efforts have been made by scholars in the field of measuring instrument development to complement the main qualitative content validation method, expert judgment, with quantitative methods. There is an array of methods for determining content validity quantitatively, including Katz's (1957) proportion, Brown's (1986) pretest-posttest, Morris and Fitz-Gibbon's (1978) Relevance Index, Rovinelli and Hambleton's (1977) *Indice of Item Congruence,* Lawshe's (1975) Content Validity Ratio and Likert scales for item rating. Yet, a very popular procedure to quantitatively estimate content validity is *Content Validity Index* or CVI (see Anderson & Gerbing, 1991), also known as proportion agreement method (method attributed to Martuza, 1977). In words of Wynd,

Schmidt, and Schaefer (2003), the CVI "allows two or more raters to independently review and evaluate the relevance of a sample of items to the domain of content represented in an instrument. A researcher then tallies the proportion of cases in which the raters agree and determine the stability of their agreement" (p. 510). To review and evaluate the relevance of a sample of items, the raters (known as observers or judges) use a Likert-type, ordinal scale, consisting of four possible responses: 1 = not relevant, 2 = somewhat relevant, 3= quite relevant, and 4 = very relevant. This method has not been without criticism by investigators and statisticians (Cohen, 1960; Waltz & Bausell, 1983). Cohen (1960), for example, states that the proportion agreement method (CVI) can be misleading because it includes agreement which can be attributable to chance. That is, raters (known as observers or judges) sometimes agree or disagree simply by chance. In order to incorporate chance agreement into calculation, Cohen's *kappa* (k) is an alternative. It is a measure of inter-rater agreement when there are two raters and “is interpreted as the proportion of agreement among raters after chance agreement has been removed" (Haley & Osberg, 1989, p. 971). According to Lynn (1986), another alternative to overcome the limitation of chance agreement with the use of CVI is to use a large numbers of experts (a minimum of five) and employ a four-level Likert-type rating scheme. Although both alternatives discussed above (inter-rater agreement with the use Cohen's *kappa* (k) coefficient and the increase of numbers of experts in the use of CVI) seem reasonable methods to evidence content validity of new instruments, measuring instrument developers (also known as scale developers) are urged

to report both proportion agreement (CVI) and inter-rater agreement - (Brennan & Hays, 1992; Wynd, Schmidt, & Schaefer, 2003).

For the sake of concluding what has been addressed about content validity, it is worth highlighting eight aspects of this issue: first, although there are numerous definitions of content validity, the simplest definition is the extent to which a sample of items, comprising a measuring instrument, adequately constitute an operational definition of a construct addressed by the instrument; second, the concepts of representativeness and relevance are of paramount importance for measuring instrument developers to form a basic conceptual structure in content validity assessment; third, content validity can be estimated with quantitative and qualitative frameworks; fourth, the main non statistical method to estimate content validity is expert judgment, because this type of validity is largely a matter of judgment; fifth, researchers often complement expert judgment method with quantitative analysis (as it is done in this study); sixth, there is an assortment of quantitative methods to complement expert judgment assessment, being *Content Validity Index* (CVI) a very popular procedure to quantitatively estimate content validity; and eighth, measuring instrument developers are often urged to complement the CVI (proportion agreement) with inter-rater agreement.

After addressing content validity, it is worth moving towardss criterion-related validity, which is another type of validity scholars and researchers look into when developing a scale (measuring instrument). Before focusing on criterion-

related validity, it is important to keep in mind, as noted earlier, that the current unified theory of validity suggests that all types of validity are subsumed by construct validity, criterion-related validity thus being an important evidence contributor of construct validity.

3.3.2. CRITERION-RELATED VALIDITY

Criterion-related validity, as pointed out earlier, is another type of validity scholars and researchers look into when developing a research measuring instrument. Kimberlin and Winterstein (2008) point out that criterion-related validity " provides evidence about how well scores on the new measure correlate with other measures of the same construct or very similar underlying constructs that theoretically should be related" (p. 2279).

Criterion-related validity (often referred to as criterion validity) concerns the extent to which an instrument (test, questionnaire or inventory) measures a variable in comparison with another instrument or predictor. Criterion validity implies the use of a criterion (criterion is known as a well-established measurement procedure or as an externally-defined "gold standard") in the creation of a new measurement procedure (criterion) to measure the construct under examination. The criterion and the new measurement procedure are expected to be theoretically related. Hence, when a measuring instrument has demonstrated its effectiveness in predicting criterion or indicators of a

construct, such instrument is said to exhibit criterion-related validity. There are two different types of criterion validity: concurrent and predictive validity. Concurrent validity deals with the extent to which the scores on the target instrument correlate with scores on other concurrent variables. On the practical side, Kimberlin and Winterstein (2008) state that "in establishing concurrent validity, scores on an instrument are correlated with scores on another (criterion) measure of the same construct or a highly related construct that is measured concurrently in the same subjects" (p. 2279). For example, a measure of learning strategies should correlate with existing measures of learning strategies. A requirement to estimate concurrent validity is that the two measures under comparison (the test scores obtained with the target instrument or instrument intended to be developed and the already valid instrument) should be administered at approximately the same time. The two obtained scores of the measuring instruments are correlated to estimate concurrent validity of the new measuring instrument (the target instrument). Predictive validity concerns the ability of a measurement instrument (questionnaires, inventories, tests, etc.) to predict some attitudes, events, outcomes or behaviors in the future. Such predictions must be made in accordance with theory. To establish predictive validity, the data is collected twice at different moments in time. Predictive validity, as well as concurrent validity, requires the use of a correlation between the variable (known as construct) in question and another variable that is used as a criterion. The essential difference between them is, as Rajamanickam (2001) points out, that "predictive validity employs a criterion at a later date, after administering the

test, whereas concurrent validity employs one of the well-established tests as a criterion" (p. 222). In other words, "in concurrent validity both the test scores and the criterion scores are obtained simultaneously whereas in predictive validity the criterion measures are obtained only after on" (Rajamanickam, 2001, p. 220). However, it can be said that predictive and concurrent validity are identical in the sense that both involve the correlation between measurement instrument scores and some criterion. Thus, the use of correlation coefficients to establish predictive and concurrent validity is indispensable.

To recapitulate so far, the last lines have been devoted to address criterion-related validity, that is, according to the unified theory of validity, a type of validity subsumed by construct validity. It was seen that this type of validity deals with how well a measurement instrument measures a variable in comparison with another criterion (instrument or predictor). The literature addressed indicated that there are two types of criterion-related validity: concurrent and predictive validity. Although both involve the correlation between measurement instrument scores and some criterion, concurrent validity deals with test scores and criterion scores obtained simultaneously whereas predictive validity, assumed to predict some attitudes, events, outcomes or behaviors in the future, deals with criterion scores obtained at a later date. To establish criterion related validity, scale developers often draw on the correlation coefficient index to estimate this type of validity.

After addressing content validity and criterion related validity, it is worth then focusing on construct validity to offer a general overview of the three types of validity often considered by scholars and measurement instrument (or scale) developers in psychological and educational research.

3.3.3. CONSTRUCT VALIDITY

In psychological and educational research, construct validity is one of the three types of validity often considered by scholars and measurement instrument developers. Construct validity is generally assumed to adequately define the construct in question with the aim of operationalizing it in a straightforward manner. It is concerned with an instrument's ability to capture the latent variable (construct or characteristic being investigated). In words of Devellis (2003), "It is the extent to which a measure "behaves" the way that the construct it purports to measure should behave with regard to established measures of other constructs" (p. 53).

Construct validity is seen as the principal type of validity, as Pérez-Gil, Chacón and Moreno (2000) point out, because it entails an integrative concept of validity. In fact, construct validity, as Messick (1980) states, "is indeed the unifying concept of validity that integrates criterion and content considerations into a common framework for testing rational hypotheses about theoretically relevant relationships" (p. 1015). It indicates that any validation attempt is construct validation.

Based on the view of construct validity as an integrative concept of validity, within which content and criterion-related validity are subsumed by construct validity, Pérez-Gil, Chacón and Moreno (2000) state that "la validez de constructo puede ser conceptualizada en términos de un proceso científico de contrastación de hipótesis, donde entraría tanto lo empírico como los juicios racionales: las hipótesis serían las inferencias realizadas a partir de las puntuaciones de los tests y la validación el proceso de acumulación de evidencias que apoyen dichas inferencias, usos o interpretaciones de las puntuaciones del test" (p. 443). The above suggests that construct validity is demonstrated from the evidenced accumulated from the target test (or instrument) administration and not only from the characteristic of the test.

3.3.3.1. METHODS OF MEASURING CONSTRUCT VALIDITY

There are varied methods to establish or estimate construct validity. In this respect Brown (2000) states that "regardless of how construct validity is defined, there is no single best way to study it. In most cases, construct validity should be demonstrated from a number of perspectives... the construct validity of a test should be demonstrated by an accumulation of evidence. For example, taking the unified definition of construct validity, we could demonstrate it using content analysis, correlation coefficients, factor analysis, ANOVA studies demonstrating differences between differential groups or

pretest-posttest intervention studies, factor analysis, multi-trait/multi-method studies, etc." (p. 8). From the previous quotation, provided by Brown (2000), it can be inferred that construct validity can be measured from different perspectives and through different methods (also referred to as techniques or statistical procedures). Among the methods previously mentioned by Brown to measure construct validity is factor analysis, which is one of the most popular and extensively used statistical methods in psychological and educational research (Bachman, 1990). In fact, as Beavers et al. (2013) point out, "factor analysis is not a singular statistical method, but rather a group of statistical analyses that share similar methodology and functionality" (p. 1). Since factor analysis is useful to estimate construct validity in measurement instrument development, which is an essential goal of this study, a broader space will be devoted further to address relevant details of factor analysis.

3.3.3.1.1. FACTOR ANALYSIS

Factor analysis is a data reduction or structure detection group of statistical analyses, employed by researchers to investigate variables that are not easily measured. Specifically, this set of statistical analyses is used to both reduce the number of variables and detect structure in the relationship between variables. In factor analysis it is assumed that diverse observed variables have similar patterns of responses which are associated with a latent variable. For example, students may respond similarly to questions about lexical,

phonological, syntactical knowledge, which are all associated with the latent variable linguistic competence.

Before addressing more details about factor analysis, it is important to clarify three aspects: 1) Construct is "a psychological quality such as intelligence, proficiency, motivation, or aptitude, which we cannot directly observe but that we assume to exist in order to explain behavior we can observe..." (Nunan, 1992, p. 15) and 2) In research methodology a variable is a measurable characteristic (or property) that varies from group to group or person to person. In the area of factor analysis, there are two types of variables: latent or underlying (not directly measured) variables, known as factors or dimensions, and observed variables; and 3) A factor is "an unobservable variable that is assumed to influence observed variables" (Albright & Myoung Park, 2009, p. 2).

Conceptually, there are two different types or techniques of factor analysis: Exploratory Factor Analysis (hereinafter EFA) and Confirmatory Factor Analysis (hereinafter CFA). Given that both techniques are employed in this study, EFA and CFA are explained below.

EFA is essentially, as Baglin (2014) states, "a cluster of common methods used to explore the underlying pattern of relationships among multiple observed variables" (p. 1). EFA is employed by researchers when they do not have a pre-defined idea of the structure or they do not know the number of

dimensions existing in a set of variables. Specifically, EFA, as Suhr (2012) clearly summarizes, “is a variable reduction technique which identifies the number of latent constructs (dimensions) and the underlying factor structure of a set of variables" (p. 1). More specifically, EFA "hypothesizes an underlying construct, a variable not measured directly... allows you to describe and identify the number of latent constructs (factors)... estimates factors which influence responses on observed variables... traditionally has been used to explore the possible underlying factor structure of a set of measured variables without imposing any preconceived structure on the outcome" (Suhr, 2012, p. 1). From this, it is clear that EFA is essential to explore (hence the term exploratory) or determine underlying constructs for a set of measured variables. On this issue, it is useful to point out that the relationship of each variable to the underlying factor is expressed by the so-called factor loading (factor loading means correlation between a variable and a factor).

When attempting to reduce the dimensions (factors) inherent in the data, researchers not only have EFA, which is mainly performed with mainstream statistical software such as IBM SPSS Statistics, SAS, and Stata, but also a wide range of options available in commercial statistical packages, for instance the principal factor methods (also called principal axis), maximum likelihood methods, and Principal Component Analysis (hereinafter PCA), the last one being an important alternative due to its widespread use. PCA is essentially a variable reduction procedure (as EFA is) used by researchers when they consider that there is some redundancy (redundancy means that some of the

variables are correlated with one another possibly because they are measuring the same construct). In words of Baglin (2014) PCA "is used to reduce a large number of interrelated variables into a smaller set of "components" with minimal loss of information" (p. 2). However, although EFA and PCA are used for variable reduction purposes, the assumptions that can be made with EFA are not the same as those that can be made with PCA. In this respect, Baglin (2014) clarifies that factor analysis is concerned with identifying the underlying factor structure that explains the relationships between the observed variables. On the other hand, PCA is used to reduce a large number of interrelated variables into a smaller set of "components" with minimal loss of information. In other words, in PCA all variance of observed variables is analyzed whereas in EFA only shared variance is analyzed (Brown, 2006; Hatcher, 1994). Hence, unlike EFA, PCA is not performed to explain the underlying population factor structure of the data.

A challenge often faced by scale developers, when dealing with variable reduction procedures (EFA or PCA), is to decide the appropriate number of factors required to adequately interpret the scale (also called components, composites, or variable). In fact, the importance of appropriately deciding how many factors or components to retain has drawn the attention of many scholars in the field of scale development (Fabrigar, Wegener, MacCallum, & Strahan, 1999; Hayton, Allen, & Scarpello, 2004). Since this decision is not easy to make, a wide range of methods have been proposed to help scale developers determine the appropriate number of factors. The two most popular methods

are Kaiser's Criterion (also known as Kaiser-Guttman criterion), and the Scree Test. These methods are both based on inspection of the correlation matrix eigenvalues. A correlation matrix is a table showing the inter-correlations among all variables and an eigenvalue is a column sum of squared loadings for a factor, which conceptually represents that amount of variance accounted for by a factor. Kaiser's criterion is a statistical criterion suggested by Guttman and adapted by Kaiser, to determine the number of factors or components (hereafter referred to collectively as factors) in the variable extraction stage (Guttman, 1954; Kaiser, 1960). As Surh (2003) points out, Kaiser's criterion "considers factors with an eigenvalue greater than one as common factors" (p. 3). In other words, this criterion does not account for factors that have eigenvalues of 0,99 or less. On the other hand, the Scree Test, proposed by Cattell (1966), is a method to graphically determine the optimal number of factors to retain. In words of Pallant (2010) Scree Test "involves plotting each of the eigenvalues of the factors (SPSS does this for you) and inspecting the plot to find a point at which the shape of the curve changes direction and becomes horizontal. Cattell recommends retaining all factors above the elbow, or break in the plot, as these factors contribute the most to the explanation of the variance in the data set" (p. 184). To put it in other words, the graph (or scree plot) used in the Scree Test is assumed to represent the relationship between the relative magnitude of the eigenvalues and the number of factors. The eigenvalues are plotted in descending order concerning their magnitude and the number of meaningful factors is indicated by the break between the large eigenvalues and the remaining small eigenvalues (between the steep

slope and a leveling off). In lay terms, scree plots are visual tools assumed to help determine the number of important factors from multivariate settings (Bryant & Yarnold, 1995).

For the sake of consolidating what has been presented, up to now, concerning exploratory factor analysis (EFA), it is worth highlighting that there are a number of techniques or approaches to help researchers determine the optimum number of factors to retain. The existing techniques also work as "stopping rules" because they are assumed to indicate researchers when they should stop adding factors. Kaiser's Criterion and Scree Test are two popular techniques used to assist in the decision regarding the number of factors to retain. Since there are several techniques (also viewed as methods or approaches) one could wonder what the correct method is. According to Brown (2009), there is no correct method. He adds that "the trick is to make the strongest possible set of arguments for why a particular number of factors were selected in a particular analysis... this is not a clear-cut decision based on a set of yes/no questions; there is an art to deciding on and explaining why you decided on a specific number of components or factors" (p. 23). Besides acknowledging that Brown (2009) must be right on this issue, it is important to highlight that the decision of how many factors to retain is often based on the purpose of explaining as much variance as possible while assuming a parsimonious model (i.e. retaining the least amount of meaningful variables). Indeed, there is an agreement in the literature that under-and over-factoring can have a substantial impact on the interpretability of factors and then on the

results of the phenomenon in question (Comrey & Lee, 1992; Fava & Velicer, 1992; Wood, Tataryn & Gorsuch, 1996). Reasons for holding this agreement are, among others, that extracting too few factors can lead to distorted solutions, and that extracting too many factors can generate an overall degradation of a true factor or induce the creation of false factors or constructs with scarce theoretical value (Comrey & Lee, 1992; Gorsuch, 2003).

Once a researcher has overcome the challenge of deciding the optimum number of factors, the next challenge is to try to interpret them. A common procedure undertaken by researchers to improve the interpretability of factors is to perform factor rotation. This procedure, which is employed in this study to facilitate the interpretability of factors, is initially recommended by Thurstone (1947) and Cattell (1978) because they assure that it simplifies the factor structure and thus facilitates its interpretation and makes it more reliable. Rotation has been defined by many scholars in the field of Exploratory Factor analysis and Principal Component Analysis. Brown (2009), for example, reports four definitions of rotation provided by different scholars and, based on those definitions he provides his own. The four definitions reported by Brown (2009, p. 20) are: 1) "performing arithmetic to obtain a new set of factor loadings (v-f regression weights) from a given set," (citing McDonald, 1985, p. 40); 2) "a procedure in which the eigenvectors (factors) are rotated in an attempt to achieve simple structure." (citing Bryant & Yarnold, 1995, p. 132); 3) "Any of several methods in factor analysis by which the researcher attempts to

relate the calculated factors to theoretical entities. This is done differently depending upon whether the factors are believed to be correlated (oblique) or uncorrelated (orthogonal)." (citing Vogt, 1993, p. 91); and 4) "In factor or principal-components analysis, rotation of the factor axes (dimensions) identified in the initial extraction of factors, in order to obtain simple and interpretable factors." (citing Yaremko, Harari, Harrison, & Lynn, 1986). Further, as anticipated earlier, Brown (2009, p. 20) defines rotation as "any of a variety of methods (explained below) used to further analyze initial PCA or EFA results with the goal of making the pattern of loadings clearer, or more pronounced. This process is designed to reveal the simple structure". From the previous definitions of rotation it can be inferred that this term stands for procedures by which the factor axes are rotated with the purpose of revealing simple structure and therefore facilitating the interpretability of factors. Concretely, rotation is the process by which the loading of each variable (on one the extracted factors) is maximized whilst the loadings on all the other factors are minimized.

There are two main types (or categories) of rotation methods: oblique and orthogonal rotations. Oblique rotations (used in this study) are those which allow for correlation and orthogonal rotations are those which assume the factors are not correlated. The advantage of orthogonal rotations, according to Bryman and Cramer (2008), is that "the information provided by the factors is not redundant" (p. 32). The disadvantage of this approach, according to these

scholars, is that "the factors may be related to one another in reality and so the factor structure does not accurately represent what occurs" (p. 32). As for the advantages and disadvantages of oblique rotations, Bryman and Cramer (2008) state that the advantage of this approach is that "the factors may more accurately reflect what occurs in real life", (p. 32) and the disadvantage is that “if the factors are related, knowledge about the values of one factor may allow one to predict the values of other factors" (p. 32). However, although these approaches are assumed to be different, in practice, as Pallant (2010) points out, "the two approaches (orthogonal and oblique) often result in very similar solutions, particularly when the pattern of correlations among the items is clear" (p. 185).

Within these two prominent rotation methods (orthogonal and oblique) there are several statistical techniques. Concerning oblique rotations techniques, for example, Brown (2009), citing Gorsuch (1983), refers to 15 different oblique methods or algorithms. In turn, the four prominent statistical techniques (algorithms) concerning orthogonal rotations are varimax, equamax, orthomax, and quartimax. Varimax (used in this study) is likely to be the most widespread used technique because it seems to present the clearest identification of factors. In this respect, Bryman and Cramer (2008) pinpoint that "the most widely used form of orthogonal rotation is varimax, which maximizes the variance within a factor by increasing high loadings and decreasing low loadings" (p. 32).

The decision to employ an orthogonal or oblique rotation approach seems to be a matter of “art”. Indeed, as Ho (2006) points out "in choosing between orthogonal and oblique rotation, there is no compelling analytical reason to favor one method over the other... there are no hard and fast rules to guide the researcher in selecting a particular orthogonal or oblique rotational technique" (p. 206). Despite the fact that there are no "hard rules" to guide this decision, some scholars dare to make "timid" or “shallow” recommendations. Pallant (2010), for instance, after pointing out that "many researchers conduct both orthogonal and oblique rotations and then report the clearest and easiest to interpret" (p. 185), recommends starting with an oblique rotation. This suggestion is also shared by Tabachnick and Fiddell (2007). Goldberg and Digman (1994) attempt to guide this decision by stating that "If one seeks lower-level factors, we recommend the use of an oblique rotation. On the other hand, if one seeks broad higher-level factors so as to discover the over-all dimensionality of the domain, we recommend the use of an orthogonal rotation” (p. 228).

Up to now, I have focused on EFA and relevant issues entailed in this type of factor analysis. Attempts have been made to outline some prominent techniques or approaches, concerning EFA, to help researchers determine the optimum number of factors to retain. Now it is time to focus on the

Confirmatory factor analysis (CFA), which is the other main type of factor analysis.

Researchers who use EFA often complement this variable reduction process with Confirmatory Factor analysis (as it is done in this study). Indeed, as Baglin (2014) points out "researchers use EFA to hypothesize and, later, confirm, through replication or confirmatory factor analysis (CFA), the model that gave rise to the interrelationships among the scale's variables" (p. 1). According to Albright and Myoung Park (2009) CFA "is theory- or hypothesis driven... allows researchers to test hypotheses about a particular factor structure (e.g., factor loading between the first factor and first observed variable is zero)... produces many goodness-of-fit measures to evaluate the model but do not calculate factor scores" (p. 3). In essence, CFA is assumed to confirm or verify hypotheses about factor structures in question.

In order to distinguish the two broad categories of factor analysis (EFA and CFA) Kline (2013, p. 173) makes a list of five aspects in which EFA differs from CFA, which is cited for a better understanding of these two methods of measuring construct validity.

1. Unrestricted measurement models are estimated in EFA, but it is restricted measurement models that are analyzed in CFA. This means that the researcher must explicitly specify the indicator-

factor correspondence in CFA, but there is no option to do so in EFA.

2. Unrestricted measurement models in EFA are not identified, which means there is no unique set of statistical estimates for a particular model. This property concerns the rotation phase, which is part of most applications of EFA. In contrast, CFA models must be identified before they can be analyzed, which means that there is only one exclusive set of estimates. Accordingly, there is no rotation phase in CFA.

3. It is assumed in EFA that the specific variance of each indicator is not shared with that of any other indicator. In contrast, CFA permits, depending on the model, estimation of whether specific variance is shared between pairs of indicators.

4. Output from CFA computer procedures contains the values of numerous fit statistics that assess the fit of the whole model to the data. In contrast, fit statistics are not generally available in standard methods of EFA (including principle components analysis and principle axis factoring, defined later) carried out by computer programs for general statistical analyses, such as SPSS (IBM, Corp, 2012) and SAS/STAT (SAS Institute, Inc., 2012), but some more specialized computer programs, such as

Mplus (Muthén & Muthén, 1998–2012), may print certain types of fit statistics for particular EFA methods.

5. Procedures for EFA are available in many computer tools for general statistical analyses, such as SPSS and SAS/STAT. In contrast, more specialized computer tools for structural equation modeling (SEM) are needed for CFA because the latter is the SEM technique for estimating restricted measurement models.

From the distinction presented above, in regard to the two broad categories of factor analysis (Exploratory Factor Analysis or EFA and Confirmatory Factor Analysis or CFA), it can be said that it is EFA when you do not have a pre-defined idea of the structure or how many dimensions there are in a set of variables. It is CFA when you want to test specific hypotheses about the structure or the number of dimensions underlying a set of variables (i.e. in your data you may think there are two dimensions and you want to verify that).

In sum, the recent lines have revolved around construct validity. Throughout this review the main methods of measuring construct validity have been addressed and special attention was drawn on factor analysis, which is the main method (or set of statistical techniques) employed to estimate this type of validity. In this attempt to address validity, it was observed that in the recent decades the three main types of validity - 'content validity', 'criterion validity',

and 'construct validity' - were taken as a unitary concept: construct validity (AERA, APA and NCME, 1999).

The three main types of validity were discussed in the light of prominent literature. Concerning content validity it was pointed out that it refers to the extent to which a sample of items, comprising a measuring instrument, adequately constitute an operational definition of a construct addressed by the instrument. The prominent methods to estimate content validity were addressed and it was observed that, although this type of validity is largely a matter of judgment, in which expert judgment method plays an important role, it cannot only be estimated with qualitative frameworks, but also with quantitative approaches. With regards to 'criterion validity' it was noted that this type of validity "provides evidence about how well scores on the new measure correlate with other measures of the same construct or very similar underlying constructs that theoretically should be related" (Kimberlin & Winterstein, 2008, p. 2279). It was also highlighted that there are two different types of criterion validity: concurrent and predictive validity. It was clarified that concurrent validity deals with test scores and criterion scores obtained simultaneously whereas predictive validity, assumed to predict some attitudes, events, outcomes or behaviors in the future, deals with criterion scores obtained at a later date. As for construct validity, it was noted that it is seen as the principal type of validity because it entails an integrative concept of validity. From the literature addressed on construct validity it was elicited that this type of validity is generally assumed to adequately define the construct in question with the

aim of operationalizing it in a straightforward manner. Likewise, it was concluded that the methods of measuring construct validity are varied. Since among that variety of methods to measure construct validity factor analysis plays a prominent role, a special attention was granted to this set of statistical analyses. Specifically, the definition of factor analysis was presented and the two different types of factor analysis (Exploratory Factor Analysis - EFA -and Confirmatory Factor Analysis -CFA-) were addressed. These types of factor analysis are assumed to help researchers determine the optimum number of factors to retain. When addressing the resources researchers have to establish the optimum number of factors to retain, it was observed that Principal Component Analysis is another important resource for this purpose.

EFA is defined by Baglin (2014) as "a cluster of common methods used to explore the underlying pattern of relationships among multiple observed variables" (p. 1). Withing the EFA approach, the two most popular methods to extract the optimum number of variables (factors) are Kaiser's criterion (also known as Kaiser-Guttman criterion), and the Scree Test. These two methods of factor extraction were briefly presented.

After focusing on EFA and its two most popular methods of factor extraction, it was proceeded to address factor rotation, which is a common procedure undertaken by researchers to improve the interpretability of factors (and a procedure employed in this study for that purpose). The two main types of rotation methods (oblique and orthogonal rotations) were briefly discussed.

The last part of validity was focused on Confirmatory Factor analysis (CFA). In so doing, what is commonly known as CFA was presented and a list of five aspects in which EFA differs from CFA, cited from Kline (2013), was shown.

3.4 QUALITY CRITERIA IN QUALITATIVE RESEARCH

The standards usually held up in judging the soundness of qualitative research are concerning the concepts of dependability, confirmability, credibility, and transferability. These concepts are used by Lincoln and Guba (1985), in pursuit of a trustworthy study, to substitute two concepts highly linked to quantitative research: "reliability and "validity". Given that this study is not directly concerned with the concepts of dependability, confirmability, credibility, and transferability, and that such four concepts can be understood with their parallel concepts previously addressed, a brief, not in-depth review of those four concepts is presented in the following lines.

Dependability. The standard of *dependability* in qualitative research, which can be compared to reliability in quantitative research, is often defined as the stability or consistency of data over time and over conditions. It deals with the researcher's account of the changing conditions inherent in any setting as well as changes to the research design. According to Brown (2004), *dependability* "requires that researchers account for (1) any shifting conditions directly

related to the people and things they are studying and (2) any modifications they have made in the design of their study as it has progressed" (p. 494). In this sense, to show evidence of dependability the researcher should account for any change presented in the setting as well as any change presented in the research design.

Confirmability. The standard of *confirmability*, which according to Lincoln and Guba (1985) is synonymous with objectivity, is commonly addressed as how well the findings of the inquiry are supported by the data collected. In other words, confirmability deals with the extent to which the findings of a study are objective, neutral and not research bias, motivation, or interest. In Brown's (2004) words, *confirmability* "requires that researchers fully reveal the data they are basing their interpretations on, or at least make those data available". (p. 494). In order to achieve *confirmability* a research method which plays an important role is triangulation (the use of multiple perspectives or sources to interpret a single set of data). The possibilities of gaining trustworthiness of a study increase when diverse sources are used in such study to confirm objectivity and neutrality of the findings' interpretations.

Credibility. The standard of credibility in qualitative research, which is closely related (or analogous) to the concept of internal validity in quantitative research (described above), refers to how congruent are the inquiry´s findings with the phenomenon under scrutiny. Brown (2004) in this respect highlights that credibility "requires researchers to show that they maximized the accuracy of

their definitions and their characterizations of the people or things under investigation" (p. 494-495).

Transferability. Transferability in qualitative research, which is closely related (or analogous) to the concept of generalizability, is often addressed as the degree to which the findings and conclusions of some research can be applicable or transferred to other situations and populations (Lincoln & Guba, 1985). As for the provisions a qualitative researcher can make to enhance transferability Brown (2004) points out that transferability "requires researchers to describe the research design, context, and conditions so well that the readers can decide for themselves if the interpretations apply to another context with which they are familiar" (p. 495). From the above, it is clear that the standard of transferability (also called comparability) deals with what in traditional criteria for judging quantitative research is addressed as external validity.

For the sake of consolidation, the previous sections of this chapter have focused on addressing the research traditions and research methods in the field of applied linguistics, as well as the most important quality criteria researchers use in quantitative and qualitative research to judge the soundness of their research. The four prominent quality criteria under the quantitative approach concern the concepts of reliability, replicability, validity, and generalizability. In turn, the four prominent quality criteria under the qualitative approach concern the concepts of the concepts of dependability,

confirmability, credibility, and transferability. It is recalled that the current study draws on the concepts of reliability and validity, which are quality criteria of quantitative research, to judge the psychometric properties of the target instrument (COBALTALI). In addition, it is anticipated that in order to estimate the validity properties of the COBALTALI it is also made use of expert judgment, which is a procedure used in qualitative research to demonstrate credibility.

CHAPTER SUMMARY

In brief, this chapter focused on four broad topics: 1) Research traditions and research methods in the field of applied linguistics; 2) Quality Criteria and Standards in quantitative research; 3) Quality Criteria and Standards in qualitative research; and 4) Validity. These topics were addressed because they are relevant not only to situate and understand the different processes undertaken in this study in its pursuit to developing and validating an English language research instrument, but also to offer a theoretical framework to conduct it.

After having addressed the most relevant literature on beliefs and on the development of research measuring instrument, now, it is time to give place to the methodology of this study. The following chapter is devoted to that purpose.

THIRD PART:

Methodology

CHAPTER 4. METHODOLOGY

CHAPTER OVERVIEW

The previous chapter (III) centered on the review of relevant literature for developing measurement instruments in educational research whereas its preceding chapter (II) focused on reviewing the relevant literature on learner beliefs. Thereby, those two chapters constituted conceptual frameworks for the study. This chapter is intended to describe the study's overall methodological framework. It starts by setting out the objectives of the study and the research questions posed to guide it. It is followed by an outline of the research design, in which the study is described in terms of data types (i.e., qualitative vs. quantitative), data collection methods (i.e., experimental vs. non-experimental), and data analysis procedures (statistical vs. interpretive). The chapter then proceeds with a description of the methodological stages undertaken to attain the objectives of the study. The chapter closes by outlining the participants, instruments and data collected involved in each of the methodological stages of the study.

4.1 OBJECTIVES AND RESEARCH QUESTIONS

As mentioned earlier, this study has a threefold purpose: 1) to develop and validate an inventory that can be used to examine beliefs Colombian university students hold about English language teaching and learning; not only the students who participated here but from other regions of Colombia 2) to describe the beliefs Colombian university students of English, who are pursuing different university programs, hold about English language teaching and learning; and 3) to determine whether gender, English level, socioeconomic stratum and age affect these learners' beliefs about English language teaching and learning. Consequently, ten research questions are posed to help fulfill these objectives.

1. Does the target instrument – COBALTALI – show evidence of validity?

2. What dimensions of language learning beliefs, according to expert judgment, does the instrument – COBALTALI – focus on?

3. What dimensions of language learning beliefs, can be identified through factor analysis, in the beliefs about English language teaching and learning reported by Colombian university students?

4. What evidence of reliability does the target instrument – COBALTALI – show according to the dimensions of language learning beliefs identified through expert judgment?

5. What evidence of reliability does the target instrument – COBALTALI – show according to the factors emerged through factor analysis?

6. What beliefs do university students who are learning English as a foreign language in Colombia hold about English language teaching and learning?

7. Does gender affect Colombian learners' beliefs about English language teaching and learning?

8. Does English level affect Colombian learners' beliefs about English language teaching and learning?

9. Does socioeconomic stratum affect Colombian learners' beliefs about English language teaching and learning?

10. Does age affect Colombian learners' beliefs about English language teaching and learning?

The first five questions aim at addressing the psychometric characteristics of the instrument under development. Question six concerns the participants' beliefs about English language teaching and learning, reported in the Participants' Belief Description Stage (described below). The last four questions deal with the effect of the variables gender, English level,

socioeconomic stratum and age on learners' beliefs about English language teaching and learning.

Before proceeding to describe the research design used in this study, it would be useful to remind that one of the strongest motivations to undertake this study is to develop and validate an instrument to research learners' beliefs about English language teaching and learning in Colombia because the existing instruments were developed in other countries, for quite different socio-cultural contexts. In this respect, the literature focused on research instruments often warns that "a previously validated instrument does not necessarily mean it is valid in another time, culture or context" (Gjersing, Caplehorn, & Clausen, 2010, p. 1). The research consensus in this area highlights the importance of using validated instruments to current research settings because "it increases the certainty with which the instruments accurately reflect what they are supposed to measure" (Gjersing, Alpenhorn, & Clausen, 2010, p. 1). Hence, developing a Colombian context-sensitive instrument, intended to study learners' beliefs about English language teaching and learning, seems to be worthy of particular support and attention by the language research community. Indeed, it should be highlighted that this study aims at standing out for its endeavors to contribute to the understanding of Colombian language learning beliefs, with the development of a validated and reliable language belief instrument with Colombian context-sensitive characteristics.

4.2 RESEARCH DESIGN: DATA TYPES, DATA COLLECTION METHODS, AND DATA ANALYSIS PROCEDURES

In an attempt to situate the present research design, it is worth having a brief look at the way research has been addressed. Research, as it was noted earlier in the discussion on research traditions and research methods in the field of applied linguistics (Chapter 3), has been classified differently throughout the recent decades. Indeed, research has been classified from "simple" models, such as those which simply refer to it as qualitative or quantitative, to relative more "complex" approaches, such as the one proposed by Grotjahn (1987), in which research can be classified in terms of three domains: *data types* (i.e., qualitative vs. quantitative), *data collection methods* (i.e., experimental vs. non-experimental), and *data analysis procedures* (statistical vs. interpretive), within which there can be two 'pure' paradigms and six mixed paradigms. The description of the research design for this study is based on these three domains: *data types, data collection methods,* and *data analysis procedures.*

As for data types, this study draws on mixed methods research, interrelating qualitative and quantitative data (Dörnyei, 2007) and thus the two research traditions – quantitative and qualitative research – are assumed as a

complimentary rather than a clear-cut dichotomy. It is congruent with Brown's (2004) view of research as a *qual–quant research continuum,* in the sense that quantitative and qualitative research can be "interactive" or compatible. That is, they can act together to produce more constructive results. Consequently, this study draws on qualitative and quantitative frameworks to pursue its objectives.

Concretely, the study initially adopts a qualitative approach, essentially through expert judgment, when the focus is on whether the target instrument (COBALTALI) shows evidence of validity, which deals with the first research question (Does the target instrument – COBALTALI – show evidence of validity?). In fact, the only qualitative procedure used in the study to address the first research question concerns expert judgment. Note that expert judgment is often employed by measuring instrument developers to assess content validity.

Subsequently, the study adopts both frameworks (qualitative and quantitative) to determine the dimensionality of the target instrument (COBALTALI), which deals with the second research question (What dimensions of language learning beliefs, according to expert judgment, does the instrument – COBALTALI – focus on?) and the third research question (What dimensions of language learning beliefs, can be identified through factor analysis, in the beliefs about English language teaching and learning reported by Colombian

university students? Concretely, under a qualitative approach, expert judgment is drawn on to identify what dimensions (facets or spectrums) of language learning beliefs the items chosen to comprise the COBALTALI address. Then, based on the beliefs about English language teaching and learning reported by the participants in the administration of the COBALTALI, it is resorted to factor analysis to identify the underlying dimensions (referred to as factors in this type of analysis) of language learning beliefs that the respondents' beliefs exhibit. Hence, the dimensions (factors) identified through factor analysis emerge from the reported participants' beliefs (data collected) and not from the characteristics of the COBALTALI. A brief description of how factor analysis was employed in this study is presented below.

Further on, the study again adopts both frameworks (qualitative and quantitative) to estimate the extent to which the COBALTALI shows evidence of internal consistency reliability and stability reliability. This is related to the fourth research question (What evidence of reliability does the target instrument –COBALTALI – show according to the dimensions of language learning beliefs identified through expert judgment?) and the fifth research question (What evidence of reliability does the target instrument –COBALTALI– show according to the factors emerged through factor analysis?). Specifically, to address the fourth research question the study draws on expert judgment and then on Cronbach's Alpha Analysis and Spearman's Correlation Analysis (details about these statistical analyses are

presented below). To address the fifth research question the study draws on Factor Analysis, Cronbach's Alpha Analysis and Spearman's Correlation Analysis, which are quantitative statistical tools performed in this study in order to estimate the internal consistency reliability and stability reliability of the target instrument (COBALTALI).

Afterwards, the study resorts to a quantitative approach to examine and describe the beliefs Colombian university students who are learning English as a foreign language in Colombia hold about English language teaching and learning, which concerns the sixth research question. Concretely, descriptive statistics (arithmetic mean) is employed to analyze the data collected in the participants' belief description stage.

Finally, the study adopts a quantitative approach to address the remaining four research questions of the study. Specifically, in order to determine whether the gender, English level, socioeconomic status, and age variables affect learners' beliefs about English language teaching and learning, some statistical analyses are performed, including Student's t test, one-way ANOVA analysis, two-way ANOVA analysis and Pearson's correlation coefficient analysis. Put simply, these statistical procedures are intended to explore mean differences in the target participants' variables.

With regard to data collection methods, which are defined by Grotjahn (1987) in terms of experimental vs. non-experimental, the present study adopted a non-experimental model, whose main data collection methods were surveys and questionnaires. Experimental research is often referred to as that which is able to manipulate the predictor variable and subjects to identify a cause-and-effect relationship, whereas non- experimental research is often referred to as that where the researcher does not control, manipulate or alter the predictor variable or subjects but instead relies on interpretations, observations, or interactions to come to a conclusion. Since the objective of this study is to document and describe the beliefs learners hold about English language teaching and learning, without any manipulation or control of this variable (beliefs), it is clear that this study corresponds to a non-experimental model.

As for data analysis procedures, which are addressed by Grotjahn (1987) in terms of statistical or interpretive, the present study draws on both frameworks (statistical and interpretive) to analyze the sets of data collected (a description of the sets of data collected is presented below). Before evidencing why the data analysis procedures undertaken in this study correspond to statistical and interpretive frameworks, it is worthwhile, first, to point out two aspects: 1) interpretive research focuses on identifying, documenting, and knowing through interpretation of values, beliefs, and world views. In words of Rowlands (2005), in interpretive research "knowledge is gained, or at least filtered, through social constructions such as language, consciousness, and shared

meanings" (p. 81). 2) During data analysis, as Patton (1987) points out, data are organized and reduced through summarization and categorization and, subsequently, patterns and themes in the data are identified and linked. Having pointing out the above, the reasons to affirm that this study performs statistical and interpretive data analysis procedures are then discussed.

Interpretive data analysis procedures are performed to the different sets of data collected for the purpose of this study. Concretely, concerning the set of data pertaining to the beliefs provided by a group of participants (students) to comprise the items for the target instrument, the interpretive procedures start when the researcher draws on his interpretive judgment about the data, to obtain content validity, by creating a list of belief-items intended to comprise the target instrument (Colombian Beliefs about Language Learning and Teaching Inventory – COBALTALI –). This procedure was performed after organizing and reducing the data under question through summarization and categorization, and subsequent identification of patterns and themes in the data. This same set of data is subjected to a number of subsequent interpretive analysis procedures, throughout the different methodological stages (described in detail below) undertaken to develop the target instrument. Most of these interpretive analysis procedures concern the times in which the researcher draws on groups of panels' expert judgments to refine the instrument and assess its content validity properties.

Furthermore, statistical data analysis procedures were performed to some of the sets of data collected for the purpose of this study (a description of the sets of data collected is presented further on). Concretely, in regards to the set of data pertaining to a test-retest procedure undertaken to assess the consistency of the target instrument (see details of this data further), the researcher draws on statistical procedures as the main means of analysis. More specifically, Spearman's correlation analysis is used to determine whether the Colombian Belief about Language Learning and Teaching Inventory or COBALTALI is reliable over time (stability test-retest correlations coefficients). It is important to remind, as it was pointed out in chapter 3, that Test-Retest Reliability is used to assess the consistency of a measure from Time 1 to Time 2, that is, from administering the target research instrument to the same test respondents on two separate occasions or times. Likewise, statistical procedures are undertaken to analyze the data concerning the beliefs reported by a group of participants (see details of this data further below in this chapter), concretely, reliability analysis regarding the aspect of internal consistency and the aspect of stability through statistical indexes; validity analysis, through exploratory and confirmatory factor analyses; item analysis (discrimination) for items that formed the empirical scales; and descriptive and inferential analysis to empirical scales, based on the characterization variables. Details about the aforementioned statistical procedures undertaken to analyze this set of data will be presented further.

In short, from the description of the research design for this study presented above it can be concluded: 1) that its data types are characterized by the use of qualitative and quantitative frameworks; 2) that the data collection methods are characterized by the use of a non-experimental model, whose main data collection methods were surveys and questionnaires; and 3) that the *data analysis procedures* correspond to statistical and interpretive frameworks.

4.3 METHODOLOGICAL STAGES OF THE STUDY

The study was designed in five methodological phases, labeled as Initial Developmental Phase, Participants' Belief Description Phase, COBALTALI Dimensionality through a Quantitative Approach, COBALTALI Reliability through a Quantitative Approach, and Sociodemographic Variables Analysis Phase.

The first phase (Initial Developmental Phase*)*, mainly devoted to the development of the research instrument (Colombian Beliefs about Language Learning and Teaching Inventory or COBALTALI), consisted of nine stages, labeled as Domain Identification Stage (I), Belief-statements Generation Stage (II), Belief-statements Depuration Stage (III), Expert Panel Review Stage (IV), Initial Content Validity Stage (V), Instrument Readability Assessment Stage (VI), General Instrument Assessment Stage (VII), Instrument Dimensionality

Stage (VIII), and Reliability Estimate Stage (IX). The second phase (Participants' Belief Description phase) focused on a description of the beliefs reported by a sample of Colombian university students through the COBALTALI, included one stage, labeled as Participants' Belief Description Stage. The third phase (COBALTALI Dimensionality through a Quantitative Approach), devoted to an exploration, from a quantitative framework, of the facets, spectrums or dimensions of language learning beliefs that concern the items comprising the COBALTALI, consists of one stage, labeled as Factor-based COBALTALI Dimensionality Stage. The fourth phase (COBALTALI Reliability through a Quantitative Approach), centered on providing evidence of the reliability properties of the COBALTALI regarding the aspect of Internal Consistency and Stability for the dimensions (the factors) obtained with factor analyses, consists of one stage, labeled as Factor-based COBALTALI Reliability Stage. The fifth phase (Sociodemographic Variables Analysis Phase), mainly dedicated to the examination of the extent the gender, English level, socioeconomic stratum, and age variables affect learners' beliefs about English language teaching and learning, is shaped by four stages, labeled as Gender Variable Analysis Stage, English Level Variable Analysis Stage, Socioeconomic Stratum Variable Analysis Stage, and Age Variable Analysis Stage. For the sake of clarity, in the following table (Table 5) the stages comprising these methodological phases of this study are presented.

Table 5. Methodological phases of the study

Phase 1 Initial Developmental Phase		
Stage	**Name**	**Main Methodological Procedures**
Stage I	Core Domain Identification Stage	Literature review
Stage II	Belief-statements Generation Stage	Students' survey
Stage III	Belief-statements Depuration Stage	Researcher's item generation process
Stage IV	Expert Panel Review Stage	Content validity assessment
Stage V	Initial Content Validity Stage	Expert judgment
Stage VI	Instrument Readability Assessment Stage	Expert judgment
Stage VII	General Instrument Assessment Stage	Expert judgment
Stage VIII	Instrument Dimensionality Stage	Expert judgment
Stage IX	Reliability Estimate Stage	Internal Consistency Reliability Estimate
		Stability Reliability Estimate
Phase 2 Participants' Belief Description phase		
Stage	**Name**	**Main Methodological procedures**
Stage I	Participants' Belief Description Stage	Administration of the COBALTALI
Phase 3 COBALTALI Dimensionality through a Quantitative Approach		
Stage	**Name**	**Main Methodological procedures**
Stage I	Factor-based COBALTALI Dimensionality Stage	Factor Analysis

Phase 4 COBALTALI Reliability through a Quantitative Approach		
Stage	**Name**	**Main Methodological procedures**
Stage I	Factor-based COBALTALI Reliability Stage	Cronbach's Alpha Index and Correlation Coefficient Test-retest (Spearman ρ)
Phase 5 Sociodemographic Variables Analysis Phase		
Stage	**Name**	**Main Methodological procedures**
Stage I	Gender Variable Analysis Stage	Student's t Test
Stage II	English Level Variable Analysis Stage	ANOVA analysis and Post Hoc Test of Least Squares Difference (LSD)
Stage III	Socioeconomic Stratum Variable Analysis Stage	One-way ANOVA Analysis
Stage IV	Age Variable Analysis Stage	Pearson's Correlation Coefficient

On this vein of clarity, the main objectives of each stage shaping the aforementioned phases are outlined below.

The first methodological phase was designed to address the first, second and fourth research questions of the study (does the target instrument – COBALTALI – show evidence of validity?, what dimensions of language learning beliefs, from a qualitative approach, does the instrument –COBALTALI – focus on?, and what evidence of reliability does the target instrument – COBALTALI – show according to a qualitative approach?). Hence, the first phase deals with the development of the target instrument and the examination

of its psychometric properties, concretely with the validity and reliability properties of the COBALTALI, based on a qualitative framework (expert judgment).

The first stage, Core Domain Identification Stage, was conceived to identify the content of interest or core construct that will be addressed with the instrument under development (COBALTALI), which was performed through an extensive literature review made by the researcher. It is worth pointing out that the researcher's interest was to develop a language belief instrument and consequently, the review turned around literature focused on language beliefs.

The second stage, Belief-Statements Generation Stage, was devoted to generate the items intended to comprise the instrument under development (Colombian Beliefs about Language Learning and Teaching Inventory – COBALTALI –).

The third stage, Belief-Statements Depuration Stage, was designed to word proper items from the belief-statements collected in the previous stage (stage II). In essence, this stage consisted in subjecting the belief-statements collected in the stage II to a process of depuration, discard and semantic synthesis, which was made by the researcher.

The fourth stage, Expert Panel Review Stage, had the aim of providing item content validity evidence by assessing, through an expert judgment, whether

the belief-statements collected in the Belief-Statements Generation Stage were well-represented by the items worded by the researcher in the Belief-Statements Depuration Stage. As for this stage, it is worth pointing out the researcher's interest was to generate the items for the target instrument (COBALTALI) from actual data provided by Colombian university students and not from assumptions or inferences that have emerged from literature or existing language belief instruments. Indeed, the researcher's interest was to develop a language belief instrument whose items really capture the most prevalent Colombian university students' beliefs about English language learning and teaching.

The fifth stage, Initial Content Validity Stage, was dedicated to assess, through expert judgment, the retained items' representativeness to the general construct or content of interest under investigation (beliefs about English language teaching and learning) and the items' degree of "cultural sensitivity". Fundamentally, this stage deals with content validity evidence of the items retained to comprise the target instrument. It should be noted that content validity, a concept that plays an important role in standards for test or scale construction, refers to the degree to which the items of a measuring instrument are representative of the construct of interest. Additionally, it is important to clarify that an item with "cultural sensitivity" is taken on in this study as an item that can make the respondent feel bad because its meaning can sound disrespectful, ambiguous or inappropriate. In this respect, in this study it is

assumed that to obtain items with adequate wording quality, and in turn with content validity, they must be devoid of cultural sensitivity.

The sixth stage, Instrument Readability Assessment Stage, which constituted another attempt to obtain evidence of content validity of the instrument, had the aim of assessing, through expert judgment, the clarity and readability properties of the remaining items intended to comprise the new instrument (COBALTALI). With the inclusion of this stage to complement the previous evidence of item content validity, it is clear that the researcher has not mitigated efforts to assure the item qualities for the COBALTALI. This position lies in the fact that, as Delgado-Rico, Carretero-Dios and Ruch (2012) point out, “the formal aspects of items should be considered, since they also affect the way the construct is finally assessed on the scale… ambiguous or poorly drafted items, for example, do not fulfill the evaluation purpose because they yield biased responses” (p. 450).

The seventh stage, General Instrument Assessment Stage, was conceived to perform, through an expert judgment, a general assessment of each part of the COBALTALI. Concretely, this stage was designed to examine the degree of clarity in the wording of the introduction paragraph, the personal information section, the instruction section of the COBALTALI, and the items comprising the COBALTALI. This stage was performed with the assumption that the wording quality of the whole instrument, not only its items, may affect the quality of the responses.

The eighth stage, Instrument Dimensionality Stage, was centered on identifying, from a qualitative approach (expert judgment), the latent dimensions or subscales of beliefs about English language learning and teaching that concern the items comprising the COBALTALI. Put simply, it is dedicated to determine what facets or spectrums of language learning beliefs the items of the COBALTALI address. It should be noted, as it was highlighted in chapter 2, that language learning beliefs is considered as a multi-dimensional construct. Furthermore, it is pertinent to point out that psychometricians and scholars strongly recommend that measuring instrument developers provide evidence of the latent dimensions or subscales related to a core construct that is said to be multidimensional (Hinkin, 1998), as it is the case of this study. One of the reasons for this recommendation is that identifying the dimensions of a multidimensional construct maximizes validity of a measuring instrument. Additionally, it is worthwhile to recall that instrument dimensionality is often determined through either expert judgment or factor analysis or both (more details about factor analysis will be presented below). This study draws on both procedures for this purpose.

The ninth stage, the last stage of phase I, labeled as the Reliability Estimate Stage, deals with the aspects of internal consistency and stability reliability of the COBALTALI. Concretely, this stage was conceived to estimate whether the dimensions (facets or spectrums of language learning beliefs) of the COBALTALI, identified through expert judgment, show evidence of internal

consistency reliability and stability reliability. In this regard it may be pertinent to anticipate that, in a further phase of this study, the internal consistency and stability reliability of the COBALTALI is again estimated but in that time the estimate is performed according to the dimensions (factors) identified through factor analysis. Furthermore, for the sake of clarity it is recalled, as can be seen in chapter 3, that internal consistency reliability deals with the extent to which the items on a measuring instrument (also referred to as a survey, test, questionnaire or inventory) that are proposed to measure the same construct or domain produce similar or consistent results. Stability reliability refers to the consistency of respondents' scores or responses when a test or questionnaire is administered to the same respondents on two different occasions. Likewise, it should be recalled that reliability and validity are fundamental psychometric properties that scale developers expect their instruments to show, and that this study evidently is in line with such expectation.

The second methodological phase (Participants' Belief Description Phase) was conceived to address the sixth research question of the study (What beliefs do university students who are learning English as a foreign language in Colombia hold about English language teaching and learning?). It is recalled that one of the main interest of this study is to gain insights into the beliefs Colombian university students of English hold about English language teaching and learning. The only stage comprising this phase, labeled as the Participants' Belief Description Stage had the purpose of reporting, through the field

administration of the developed target instrument (COBALTALI), the beliefs the target sample hold about English language teaching and learning.

The third methodological phase (COBALTALI Dimensionality through a Quantitative Approach) was devoted to deal with the third research question of the study (What dimensions of language learning beliefs, from a quantitative approach, does the instrument – COBALTALI – focus on?). This phase consisted of one stage whose main objective was to provide construct validity evidence of the COBALTALI through the exploration, from a quantitative approach (factor analysis) of the latent dimensions or subscales (known as factors in factor analysis model) of beliefs about English language learning and teaching that concern the items comprising the COBALTALI. In this respect, it is pertinent to point out that language learning beliefs, as it was evidenced in chapter 3, is considered as a multi-dimensional construct. Furthermore, it should be highlighted that scholars and researchers persistently suggest that test developers present evidences of the latent dimensions or subscales related to the core construct of a research instrument, because when such evidence is provided the construct validity of the target measuring instrument is maximized. It is recalled that construct validity is one of the most important criteria (or standard) to judge the soundness of quality of research instruments. Additionally, it is noted that factor analysis, which is a group of statistical techniques, is a widely used procedure to determine the dimensionality of a research instrument from a quantitative framework.

The fourth methodological phase (COBALTALI Reliability through a Quantitative Approach) was designed to address the fifth research question of the study (What evidence of reliability does the target instrument – COBALTALI – show according to a quantitative approach?) This phase was shaped by one stage, the Factor-based COBALTALI Reliability Stage, in which it was aimed at providing evidences of two aspects of reliability in the COBALTALI: The internal consistency reliability and stability reliability. It is important to keep in mind that in this stage the COBALTALI reliability analysis is based on the dimensions (factors) of language learning beliefs identified or extracted through factor analysis, not on the dimensions identified through expert judgment. Furthermore, it is adequate to highlight, as it was shown in chapter 3, that reliability, which concerns the degree to which a measuring instrument produces stable and consistent results, is another important criteria to assess the soundness of quality of research instruments. Also, it is reminded that Internal consistency reliability refers to how well the items on the research measuring instrument (survey, test, questionnaire or inventory) that are proposed to measure the same construct or idea (in this case it is language learning beliefs) yield similar or consistent results. In turn, stability reliability deals with to the consistency of respondents' scores or responses when a measuring research instrument is administered to the same respondents on two different occasions.

The fifth, the last, methodological phase (Sociodemographic Variables Analysis Phase) was assumed to address the last four research questions of the study.

This phase was shaped by four stages (Gender Variable Analysis Stage, English Level Variable Analysis Stage, Socioeconomic Stratum Variable Analysis Stage, and Age Variable Analysis Stage), in which it is aimed at examining how learners' beliefs about English language teaching and learning are affected by the gender, English level, socioeconomic stratum, and age variables. The examination is performed through statistical procedures (Student's t Test, ANOVA Analysis, and Pearson's Correlation Coefficient) and based on the dimensions (factors) of language learning beliefs identified or extracted through factor analysis.

After having presented the main objectives of the methodological stages that concern this study, it is time to move towardss a description of the participants, instruments, and data collected. The following section is devoted for that purpose.

4.4 PARTICIPANTS, INSTRUMENTS, AND DATA COLLECTED

The previous section was dedicated to describe the methodological stages performed for the purposes of the study. This section deals with the sets of participants involved in such methodological stages, as well as the instruments used to collect the data and the data collected with such participants.

To begin with, throughout the development of the methodological stages outlined above, eight different groups of participants were required, eight sets of data were collected from those participants, and seven instruments were employed, as can be seen in Table 6.

Table 6. Participants, Data Collected and Instruments

Phase 1 Initial Developmental Phase			
Stage	**Participants**	**Data collected**	**Instruments**
Stage I: Core Domain Identification Stage	Not required	Not required	Not required
Stage II: Belief-Statements Generation Stage	249 students	A set of 2,556 belief statements	Survey 1: open-ended question survey
Stage III: Belief-Statements Depuration Stage	Not required	Not required	Not required
Stage IV: Expert Panel Review Stage	A three-expert panel	An experts' judgment report	Survey 2: expert judgment survey
Stage V: Initial Content Validity Stage	A three-expert panel	An experts' judgment report	Survey 3: expert judgment survey
Stage VI: Instrument Readability Assessment Stage	A three-expert panel	An experts' judgment report	Survey 4: expert judgment survey
Stage VII: General Instrument Assessment Stage	10 university students	A students' judgment report on the COBALTALI	Survey 5: student judgment survey
Stage VIII: Instrument Dimensionality Stage	A five- expert panel	An experts' judgment report	Survey 6: expert judgment survey
Stage IX: Reliability Estimate Stage	563 students for the Internal Consistency Reliability Estimate	563 participants' belief report	Survey 7: COBALTALI
	29 students for the Stability Reliability Estimate	A test-retest report	Survey 7: COBALTALI
Phase 2 Participants' Belief Description phase			
Stage	**Participants**	**Data collected**	**Instruments**

Stage I: Participants' Belief Description Stage	563 university students	563 participants' belief report	Survey 7: COBALTALI
Phase 3 COBALTALI Dimensionality through a Quantitative Approach			
Stage	**Participants**	**Data collected**	**Instruments**
Stage I: Factor-based COBALTALI Dimensionality Stage	563 university students	563 participants' belief report	Survey 7: COBALTALI
Phase 4 COBALTALI Reliability through a Quantitative Approach			
Stage	**Participants**	**Data collected**	**Instruments**
Stage I: Factor-based COBALTALI Reliability Stage	**563** university students Internal consistency reliability estimate	563 participants' belief report	Survey 7: COBALTALI
	29 university students Stability reliability estimate	29 participants' belief report	Survey 7: COBALTALI
Phase 5 Sociodemographic Variables Analysis Phase			
Stage	**Participants**	**Data collected**	**Instruments**
Stage I: Gender Variable Analysis Stage	563 university students	563 participants' belief report	Survey 7: COBALTALI
Stage II: English Level Variable Analysis Stage	563 university students	563 participants' belief report	Survey 7: COBALTALI
Stage III: Socioeconomic Stratum Variable Analysis Stage	563 university students	563 participants' belief report	Survey 7: COBALTALI
Stage IV: Age Variable Analysis Stage	563 university students	563 participants' belief report	Survey 7: COBALTALI

As can be seen in the table above, the study required not only different sets of participants and data in most of the methodological stages, but also different instruments. Likewise, it can be observed that there were two stages in phase

1 (stage I and III) in which neither participants nor instruments were required. It was only necessary the role of the researcher. For more clarity about the information presented in Table 6, a broader description of these sets of participants, instruments and data collected is presented below.

4.4.1 PARTICIPANTS, INTRUMENTS, AND DATA COLLECTED IN THE BELIEF-STATEMENTS GENERATION STAGE (II)

This first set of subjects was considered to generate the items intended to comprise the instrument under development (Colombian Beliefs about Language Learning and Teaching Inventory –COBALTALI –). Concretely, these participants had the purpose of reporting latent Colombian beliefs about English language teaching and learning.

The participants in this part of the study were 249 students from 4 universities located in Bogota, who were enrolled in an English program offered as a compulsory course. The students came from different majors and the English course was part of the curriculum of those majors. These participants can be seen as a volunteer sampling since these students volunteered their service for the study. It is important to note that although attempts were made to obtain a bigger sample from 22 universities located in Bogotá, only four prestigious universities allowed the researcher to collect data from their students who voluntarily decided to participate.

Furthermore, given that the researcher's interest was to generate the items for the target instrument (COBALTALI) from actual data provided by Colombian university students with different English levels, ages and of both genres (males and females), attempts were made to get participants with these characteristics. Accordingly, the sample included university students from different English levels (A1, A2, B1, B2, C1, and C2, according to the European Framework of Reference). The information concerning the participants' English levels was revealed by the directors of the English programs in each university (information gathered by the researcher before addressing the participants), and emerged, according to them, from classifications made by the institutions where the students had been subjected to placement tests. Their ages ranged from 18 to 45 with a mean age of 23.4 years. There were both males (52%) and females (48%).

As for the instrument employed in this stage, it was an open-ended question survey, referred to as Survey 1 in Table 6 (this survey is shown in Appendix A). It was designed by the researcher and administered to the participants (249 students) in a paper format in their places of study (universities). As can be seen in Appendix A, this survey, presented in Spanish language, consisted of an open-ended question which invited the respondent to report the existing beliefs about English language teaching and learning in Colombia, without paying attention to whether they were right or wrong beliefs. To help the respondents guide this report, the survey presented nine areas or domains

concerning English learning (i. e. Rol del Aprendiz, Ambiente de Aprendizaje, Recursos de Aprendizaje, Motivación, Macrohabilidades Comunicativas (hablar, leer, escuchar, escribir), Género y Edad, Condiciones Económicas, Experiencias en el Aprendizaje, and Currículo y Evaluación[3]); and four areas related to English teaching (i.e. Perfil y Rol del Docente, Ambiente de Enseñanza, Enfoques Pedagógicos (metodologías), and Recursos de Enseñanza[4]). These areas emerged from the literature devoted to language beliefs (Altan, 2006; Barcelos, 2006; Benson, 2001; Bernat & Gvozdenko, 2005; Calderhead, 1996; Meirink et. al., 2009; Pajares, 1992; Rieger, 2009), instruments designed to assess language beliefs (Horwitz, 1985, 1999; Sakui & Gaies, 1999) and informal interviews made by the researcher, in a pre-design stage of the survey, with English teachers and university students in their role of language learners. The main concern with this survey was to obtain sufficient and relevant data — beliefs — to generate the items for the intended instrument (COBALTALI).

With regard to the data collected, it is simply anticipated that it consisted of 2,556 belief statements reported by the chosen sample abovementioned. A broader description of this set of data is presented further on, in chapter 5.

[3] Role of Learner, Learning Environment, Learning resources, Motivation, Communicative macroskills (Speaking, Reading, Listening, Writing), Gender and Age, Economic Conditions, Learning Experience, and Curriculum and Assessment.

[4] Teacher's Profile and Role, Teaching environment, Pedagogical Approaches (Methodologies) and Teaching Resources.

4.4.2 PARTICIPANTS, INTRUMENTS, AND DATA COLLECTED IN THE EXPERT PANEL REVIEW STAGE (IV)

This second set of participants consisted of three content expert panelists whose mission was to judge whether the synthesis, made by the researcher, of the initial pool of beliefs (reported in the Belief-Statements Generation Stage) into a smaller set of items was appropriate in general terms. All of the three expert panelists had completed a PhD and were applied linguistic researchers.

In regards to the instrument used in this stage, it was a survey labeledas Survey 2 in Table 6 (see Appendix B) designed by the researcher and administered to the participants (3 content expert panelists) via E-Mail. The survey, presented in Spanish language, asked the respondent (expert panelists) to assess whether the most latent beliefs reported in the Belief-Statements Generation Stage were well-represented by a smaller number of items intended to comprise the COBALTALI. More concretely, each expert member was shown some groups of belief-statements that had been grouped semantically and a “central item” (see Appendix B) which was assumed to represent each group of the belief-statements, and through a dichotomous scale (two-point scale with the options “sí representado” and “no representado”) they were asked to judge whether each “central item” adequately represented or not the group of belief-statements associated to that item. It should be noted that through the survey, the respondents were also

urged to report their comments or suggest a new “central item”. Along with the survey, the expert panel was given two appendices – “Características del instrumento” and “Contextualización, Instrucciones y Planilla”, one devoted to present the characteristics of the instrument under development (COBALTALI) and the other that concerned the contextual details and the instructions behind the judgment process they had to perform.

As for the data collected, it is simply anticipated that it was a set of “sí representado” and “no representado” responses, through which the respondents performed the required assessment. A broader description of this set of data is presented below in chapter 5.

4.4.3 PARTICIPANTS, INTRUMENTS, AND DATA COLLECTED IN THE INITIAL CONTENT VALIDITY STAGE (V)

This third group of participants consisted of three professionals in language teaching with postgraduate studies in applied linguistics, one with an MA and two with a PhD in applied linguistics. The experts holding a PhD were two of the three subjects who participated in the previous stage (labeled as expert panel review stage). Their role was to assess two aspects of the items intended to comprise the instrument under development: their representativeness to the general construct or content of interest under investigation (beliefs about English language teaching and learning) and their

degree of cultural sensitivity. For the sake of clarity it is pointed out that whereas the role of the expert panel in stage IV was to judge the synthesis, made by the researcher, of the initial pool of beliefs, the role of the expert panel in this stage V was to judge aspects of representativeness and cultural sensitivity in the retained items.

With respect to the instrument used in this stage, it was a survey (labeled as Survey 3 in Table 6) designed by the researcher in order for the panel of experts to assess items' representativeness to the construct under investigation and items' degree of cultural sensitivity. For the respondent (expert panelists) to perform the assessment the survey (see Appendix C) presents the items under examination and a scale from 1 to 4, in which each expert was asked to rank each item according to the following criteria: 1=not important to include in survey; 2= somewhat important to include in survey, 3=important to include in survey, and 4=extremely important to include in survey. Additionally, in the survey there is a space for the panelists to report, through a dichotomous scale, whether the exhibited items present or not any degree of cultural sensitivity. The survey was administered to the content experts via E-Mail in Spanish language.

As for the data collected, it is simply anticipated that it consisted of two parts: a set of responses, according to the four criteria abovementioned, and a set of responses based on the dichotomous scale in which the respondents

assessed whether the items presented or not cultural sensitivity. The report of these sets of data collected is presented further on, in chapter 5.

*4.4.4 PA*RTICIPANTS, INTRUMENTS, AND DATA COLLECTED IN THE INSTRUMENT READABILITY ASSESSMENT STAGE (VI)

This group of participants consisted of three content expert panelists, one with a PhD in applied linguistics with extensive experience in English language research, one with a magister in foreign language teaching, and one with a Bachelor degree in English language teaching. The aim of this expert panel was to assess, through a survey, the clarity and readability properties of the remaining items intended to comprise the instrument under development (COBALTALI). Importantly, given that the researcher's interest was to discover possible item flaws that the previous expert panelists had not detected yet, it was opted to involve different expert judges for this purpose, which indicates that none of these expert panelists had participated before in the study.

With reference to the instrument used in this stage, it was a survey designed by the researcher with the aim of assessing the clarity and readability properties of the retained items to comprise the instrument under development (COBALTALI). It is pertinent to point out that *readability* refers to the semantic and syntactic attributes of the written words. When assessing readability in items of measuring instruments, word difficulty and sentence length are the

best predictors of readability. Hence, it is expected that items with adequate readability attributes represent relative utility for persons with varying degrees of reading skills. The survey (labeled as Survey 4 in Table 6) presents the items under examination and a yes-no dichotomous scale for the respondents (expert panelists) to assess whether the retained items hold or not a clear wording and another yes-no dichotomous scale for the respondents to judge whether those items were worded or not with an adequate length. This instrument was administered to the content experts via E-Mail in Spanish language.

As regards the data collected, two set of data were gathered, one set related to the participants' judgment on the items wording clarity and the other set appertained to the subjects assessment on the items length. The report of these sets of data is presented further on, in chapter 5.

4.4.5 PARTICIPANTS, INTRUMENTS, AND DATA COLLECTED IN THE GENERAL INSTRUMENT ASSESSMENT STAGE (VII)

The previous sets of participants were mainly involved in assessing the technical qualities of the items for the target instrument (COBALTALI). Now, given that no attempts had been made before to perform a general assessment of each part of the novel instrument, a new judge panel was involved for such mission. Concretely, a new set of participants were asked to

examine, through a survey, the degree of clarity in the wording of the introduction paragraph, the personal information section, and the instruction section of the COBALTALI, through the following criteria: “deficiente” (poor), “aceptable” (fair), “buena” (good), and “excelente” (excellent). Additionally, they were also requested to assess the items comprising the COBALTALI in terms of their wording clarity.

This set of participants consisted of ten 10 university students, enrolled in an English course and in a major in psychology (in fifth semester of studies in psychology) with knowledge of research instrument development, specifically of content validity in measuring instruments. There were six males and four females, whose ages ranged from 18 to 25 and whose English level was A2, according to a classification made by their institution. Although attempts were made to get a bigger sample for this purpose, these 10 students were the only volunteers who accepted to participate.

Additionally, it may be appropriate to highlight that this panel was purposively selected because 1) they voluntarily accepted to participate, 2) they were university English learners with similar socio-demographic characteristics to the participants intended to be administered the instrument in the Participants’ Belief Description Stage, and 3) they had knowledge of research instrument development, specifically of content validity in measuring instruments.

As for the instrument employed for this purpose, it was a Spanish language survey designed by the researcher. The survey was created for the judge panel, the 10 students described above, to perform a general assessment of a version of the Beliefs about Language Learning and Teaching Inventory (see Appendix C). The survey consisted of five sections. The first section was devoted to collect data about the respondents (the 10 students), including name, age, semester, and career. The second section was dedicated to collect data concerning respondents' assessment of the degree of clarity in the wording of the introduction paragraph of the COBALTALI (presentation paragraph). The third was designed for the respondents to assess the degree of clarity in the wording of the section where the COBALTALI requests information about the respondent. The fourth was a section for the respondents to assess the degree of clarity in the wording of the instruction paragraph of the COBALTALI. Lastly, the fifth section was designed for the respondents to access the items of the COBALTALI in terms of clarity of wording, item length, and appropriateness in the scaling technique (the answer five-point Likert scale). For the respondents to assess the quality of the items, the survey presented a four-point Likert scale with the following response options: poor, fair, good, and excellent. It is important to point out that along with this instrument the respondents were given the COBALTALI in a paper format for them to perform the assessment (a broad description of the COBALTALI is presented below).

With respect to the data collected, it corresponded to the general assessment performed by the participants to the different parts that comprise the COBALTALI. The report of data collected is presented below, in chapter 5.

4.4.6 PARTICIPANTS, INTRUMENTS, AND DATA COLLECTED IN THE INSTRUMENT DIMENSIONALITY STAGE (VIII)

A five-expert panel participated in this stage of the study. The expert panel included five professionals holding postgraduate studies, whose areas of interest and expertise included applied linguistics, English language education and language research. The role of these participants was to identify the latent dimensions (also referred to as domains or subscales of language learning beliefs in this study) that concern the items intended to comprise the instrument under development (COBALTALI), through a Substantive Agreement Index (SAI). It should be noted that the SAI is an index assumed to reflect the proportion of experts who assign an item to its intended construct (Hinkin & Tracey, 1999). It is important to point out that this expert panel only participated in this stage of the study, because difficulties emerged at the time of counting on the experts who had previously been involved.

As regards the instrument employed in this stage, it was a survey designed by the researcher for the respondents (5 expert panelists) to identify the latent dimensions (also referred to as domains or subscales of language learning

beliefs in this study) that concern the items of the COBALTALI. The survey, as can be seen in Appendix D, was designed under a Substantive Agreement Index model (SAI), which is an index employed by Anderson and Gerbing (1991) to assess item dimensionality. In words of Hinkin and Tracey (1999), the SAI "reflects the proportion of respondents who assign an item to its intended construct" (Hinkin & Tracey, 1999, p. 176). In order for the survey to work as a Substantive Agreement Index, it exhibits six dimensions or subscales of language learning beliefs which the retained items to comprise the COBALTALI might belong to: Learning Context, Teacher's Role/ Profile, Motivation and Expectations, Learning Strategies and Activities, Teaching Methods/Approaches, and Learning Aptitude and Difficulty. The six dimensions emerged from a researcher's examination of the retained items to comprise the instrument and a researcher's review of the literature on language learning beliefs. In other words, after a thorough analysis of the items the researcher concluded that such items might be grouped into the abovementioned six dimensions. However, to increase content validity on this issue, the researcher opted for a substantive agreement index (through expert judgment), to help him assist in that item dimensionality identification. The expert panelists were asked either to assign each item to one of the six domains posed by the researcher (SAI model) or suggest a new domain if it was pertinent. To help the respondents do their work, the survey contained the definitions of the six posed domains. It should be noted that although such definitions emerged from the literature reviewed, they were worded by the researcher.

Regarding the data collected, it concerned the report of the item dimensionality identification made by the five expert panelists, through the survey designed under a substantive agreement index model. Such report is presented further on, in chapter 5.

4.4.7 PARTICIPANTS, INTRUMENTS, AND DATA COLLECTED IN THE RELIABILITY ESTIMATE STAGE (IX)

As for the samples, this stage required two groups of participants: one group for the internal consistency reliability estimate of the COBALTALI and the other group for the stability reliability estimate of the COBALTALI. To begin with, it is important to point out that the subjects involved in the internal consistency reliability estimate were the same included in phase II (Participants' Belief Description phase) phase III (COBALTALI Dimensionality through a Quantitative Approach), phase IV (COBALTALI Reliability through a Quantitative Approach), and phase V (Sociodemographic Variables Analysis Phase): a sample of 563 university students from six universities located in Bogotá. In turn, the participants involved in stage IX of phase I (Initial Developmental Phase), for the stability reliability estimate of the COBALTALI, were the same involved in Stage I (Factor-based COBALTALI Reliability Stage) of phase IV (COBALTALI Reliability through a Quantitative Approach). For the sake of clarity, these two sets of participants are described in more detail below.

The sample involved in the internal consistency reliability estimate of the COBALTALI consisted of 563 university students from six universities located in Bogotá. This sample can be seen as a volunteer sampling since it was comprised by students who voluntarily decided to take part in this study. In fact, although 22 universities located in Bogotá were extended the invitation to participate in this study, only these six institutions accepted it (two public universities and four private ones).

It is pertinent to highlight that this set of students was also asked to report their English level, age, socioeconomic stratum, and gender, because the data collected was also employed to determine whether gender, English level, socioeconomic stratum and age affect learners' beliefs about English language teaching and learning.

As shown in figure 1 below, out of the total number of participants, 275 were males (48,8%) and 288 were females (51,2%).

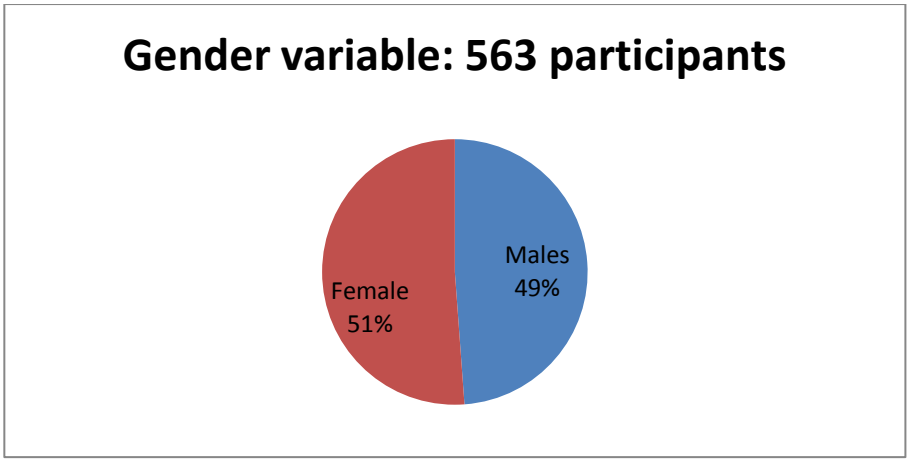

Figure 1. Proportion of male and female participants

As for the participants' ages, it was reported that their ages ranged from 18 to 45 with a mean age of 20.9. %. In the following tables (Table 7 and 8) the information gathered from the participants' age is shown.

Table 7. Information pertaining to the participants' age.

Age variable					
Age		Frequency	Percentage	Valid percentage	Accumulated percentage
Valid	16	10	1,8	1,8	1,8
	17	55	9,8	9,8	11,6
	18	93	16,5	16,6	28,3
	19	92	16,3	16,5	44,7
	20	97	17,2	17,4	62,1
	21	49	8,7	8,8	70,8
	22	30	5,3	5,4	76,2
	23	25	4,4	4,5	80,7
	24	26	4,6	4,7	85,3
	25	15	2,7	2,7	88,0
	26	13	2,3	2,3	90,3
	27	16	2,8	2,9	93,2
	28	4	,7	,7	93,9
	29	6	1,1	1,1	95,0
	30	6	1,1	1,1	96,1
	31	8	1,4	1,4	97,5

	32	4	,7	,7	98,2
	35	3	,5	,5	98,7
	37	2	,4	,4	99,1
	38	1	,2	,2	99,3
	40	2	,4	,4	99,6
	47	1	,2	,2	99,8
	57	1	,2	,2	100,0
	Total	559	99,3	100,0	
Lost	99	4	,7		
Total		563	100,0		

Table 8. Participants' age range

Age range	Number of participants	%
16-19	250	44,40%
20-23	201	35,70%
24-27	70	12,43%
28-31	24	4,26%
32-35	7	1,24%
36-39	3	0,53%
40-43	2	0,36%
Older than 43	2	0,36%
Unknown age	4	0,71%

As can be seen in Table 8, the sample's age centered on the two ranges 16-19 (44,40%) and 20-23 (35,70%). Furthermore, it was evidenced that there were very few participants with ages higher than 31 years (14 participants), and 4 participants who did not report their ages.

With regard to the participants' English level, the sample corresponded to students from different English levels (A1, A2, B1, B2, and C1, according to the

European Framework of Reference). As can be seen in Figure 2, 37,12% of the participants had an A1 English level, 36,06% an A2, 18,65% a B1, 4,44% a B2, and 1,24% a C1. The data also revealed that there was a set of students (2,49%) who did not report their English level.

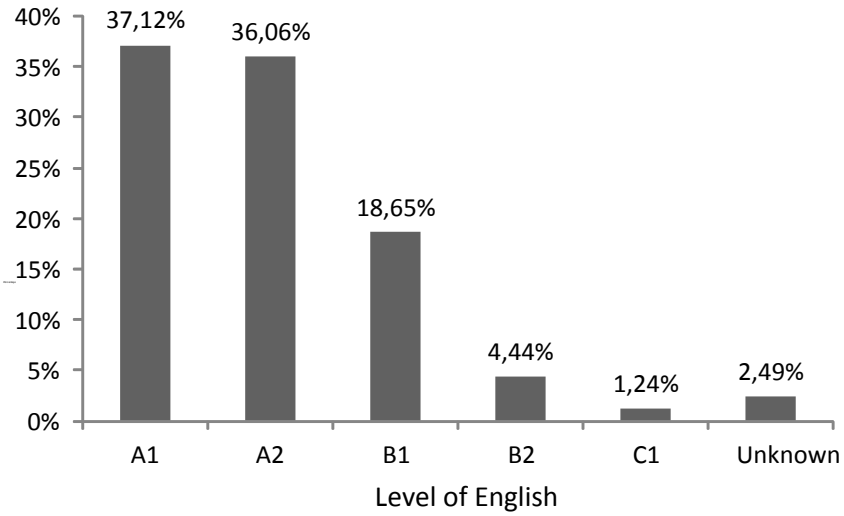

Figure 2. Distribution of the participants according to their English level

It should be noted that the information concerning the participants' English level, presented in Figure 2, emerged from classifications made by their institutions, based on the European Framework of Reference. Additionally, it is recalled that these participants were taking English as a compulsory course in their universities, where they were also enrolled in different undergraduate programs.

In regards to the participants' socioeconomic strata, it should be noted that socioeconomic stratum refers to a socioeconomic stratification made in

Colombia on citizens' residential property. Such stratification is a classification based on the Colombian citizens' characteristics of housing and urban or rural environment. In Colombia the Socioeconomic strata are six: *Low-low* (which parallels to socioeconomic stratum 1 in this study), *Under* (or socioeconomic stratum 2), *Medium-Low* (or socioeconomic stratum 3), *Medium* (or socioeconomic stratum 4), *Medium-High* (or socioeconomic stratum 5), and *High* (or socioeconomic stratum 6). Broadly speaking, the people classified in a Low-low socioeconomic stratum correspond to those with the lowest levels of economic and housing conditions, whereas the people classified in a high socioeconomic stratum correspond to those with strong or superior economic conditions.

The participants' socioeconomic strata revealed that 2,49% of the students belonged to Low-low socioeconomic stratum (1); 36,23% to Under socioeconomic stratum (2), 51,69% to Medium-Low socioeconomic stratum (3), 6,39% to Medium socioeconomic stratum (4), 0,36% to Medium-High socioeconomic stratum (5), and that there was a set of students (2,84%) who did not report their socioeconomic stratum. For more clarity this information is shown in Figure 3.

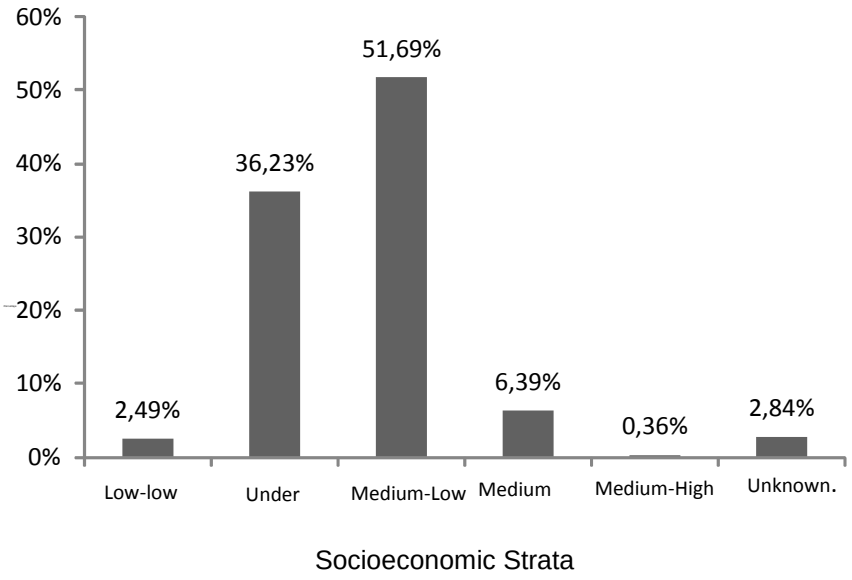

Figure 3. Distribution of the participants according to their socioeconomic strata

As can be seen in Figure 3, the participants in this stage can be grouped into five socioeconomic strata, most of them found in Under stratum (2) and Medium-Low stratum (3).

Now, after the description of the participants in this stage, the spotlight is turned to the instrument employed in this reliability estimate stage. The instrument was the most refined version of the Colombian Beliefs about Language Learning and Teaching Inventory – COBALTALI –, or the target instrument of this project. It is important to clarify that this instrument was the same used in the Participants' Belief Description Stage. The COBALTALI consisted of two sections. The first section was devoted to collect data about

the respondents, including gender, age, socioeconomic stratum, semester, and English level. It is reminded that this information was asked because one of the purposes of the study is to examine the extent to which such variables (gender, age, socioeconomic stratum, and English level) affect participants' language learning beliefs. The second section of the COBALTALI was designed for the respondents to report the degree of agreement or disagreement on item-beliefs comprising this inventory. For respondents to indicate their level of agreement or disagreement, the COBALTALI format presented a symmetric agree-disagree scale, based on a 5-point Likert scale, in which the number 1 stands for "Strongly agree", the 2 stands for "Agree", the 3 for "Neither agree nor disagree", the 4 for "Disagree" and the 5 for "Strongly disagree". The COBALTALI was designed in Spanish language and administered to the participants (563 students) in their universities, where they were taking English as a compulsory course. It is pertinent to point out that it was opted for Spanish language in the COBALTALI because this instrument was thought of for the Colombian context and the overwhelming majority of Colombians speak Spanish.

Now, after having described the participants and the instrument involved in the internal consistency reliability estimate of the COBALTALI, it is the opportunity to focus on the participants, the instrument and the collected data implicated in the stability reliability estimate of this instrument.

The sample for the stability reliability estimate was a group of 29 students from a university located in Bogota, who were taking English there as a compulsory course. They were students of a "Business Management" program, who voluntarily decided to take part in this study. They were counted for providing data concerning a test-retest process of the instrument under development (COBALTALI). Note that a test-retest process is understood in the area of scale (or instrument) development as a procedure to assess the stability reliability properties of a measuring instrument over time. It consists in administering the target research instrument to the same test respondents on two separate occasions or times. The scores from time 1 and time 2 are usually correlated to assess the test for stability over time. Furthermore, it is important to note that, although attempts were made to have a bigger sample for this purpose, these 29 students were the only volunteers who accepted to participate.

The instrument employed to collect data in the internal consistency reliability estimate of the COBALTALI, was, of course, the COBALTALI, which, as noted earlier, was the same used to collect the data for both the stability reliability estimate of that inventory (test-retest process abovementioned) and the description of the Colombian university students' beliefs about English language learning and teaching (the Participants' Belief Description Stage).

Thereby, to obtain a description of this instrument (COBALTALI) it is suggested to see the information recently presented above, in which the instrument involved in the internal consistency reliability estimate of the COBALTALI was broadly described.

With reference to the data collected in the stability reliability estimate of the COBALTALI, it should be clarified that it resulted from administering the COBALTALI to the same test respondents (29 students) on two separate occasions or times, in a lapse of four days between each administration, under similar conditions. Since literature on language learning beliefs indicates that this underlying construct does not easily change over a short time, this four-day interval administration was assumed by the researcher as a confident interval. In other words, the data collected consisted of two sets of beliefs reported by the same participants (29 students), in the test-retest process of the COBALTALI. The report of these two sets of beliefs, gathered through the COBALTALI, is presented below, in chapter 5.

4.4.8 PARTICIPANTS, INTRUMENTS, AND DATA COLLECTED IN THE PARTICIPANTS' BELIEF DESCRIPTION PHASE (II)

To begin with, it is recalled that the sample involved in this phase was the same implicated in the previous stage (the reliability estimate stage),

specifically in the internal consistency reliability estimate of the COBALTALI. As mentioned earlier, the sample comprised 563 university students from six universities located in Bogotá. Given that this sample was already described in the previous section it is simply pointed out here that this set of participants was asked to report the beliefs they hold about English language learning and teaching through the target instrument (Colombian Beliefs about Language Learning and Teaching Inventory – COBALTALI –). Essentially, they had to report the degree of agreement or disagreement on the pool of item-beliefs comprising the COBALTALI, through a symmetric agree-disagree scale, based on a 5-point Likert scale. The data collected from these participants dealt with the second and third main objectives of this work: to describe the beliefs Colombian university students of English, who are pursuing different university programs, hold about English language teaching and learning; and to determine whether gender, English level, socioeconomic stratum and age affect these learners' beliefs about English language teaching and learning.

On this vein, the instrument employed in this stage was the item-belief COBALTALI and the data collected corresponded to the beliefs reported by the chosen sample (563 university students). In addition, it is important to highlight, as it was pointed out earlier, that the study resorted to a quantitative approach, concretely to descriptive statistics (arithmetic mean) to analyze the data collected in this participants' belief description stage. Likewise, it is pertinent to clarify that this same set of data was subjected to other quantitative analyses, including Student's t test, one-way ANOVA analysis, two-way ANOVA analysis,

and Pearson's correlation coefficient analysis, to determine whether the gender, English level, socioeconomic stratum, and age variables affect learners' beliefs about English language teaching and learning.

Given that a previous section (section 4.4.7) was dedicated to address the participants, instruments, and data collected in Phase III and IV, the following section will deal with Phase V.

4.4.9 PARTICIPANTS, INTRUMENTS, AND DATA COLLECTED IN THE SOCIODEMOGRAPHIC VARIABLES ANALYSIS PHASE (V)

This phase, the last one, deals with the last objective of the study: the exploration of whether participants' variables such as gender, English level, socioeconomic stratum, and age have any effect on their beliefs about English language learning and teaching.

For this last stage of the study the sample, instrument, and data collected were the same involved in the previous phase, labeled as the Participants' Belief Description Phase. That is, the participants were 563 university students from six universities located in Bogotá, the instrument was the Colombian Beliefs about Language Learning and Teaching Inventory – COBALTALI – consisting of 57 items, and the data collected corresponded to the beliefs they (563 university students) reported as holding about English language learning and

teaching through the target instrument (Colombian Beliefs about Language Learning and Teaching Inventory –COBALTALI-). On this vein, in this phase the data collected was used to determine whether gender, English level, socioeconomic stratum, and age affect the learners' beliefs about English language teaching and learning. For this purpose, as noted earlier, the data was subjected to quantitative analyses, including Student's t test, one-way ANOVA analysis, two-way ANOVA analysis, and Pearson's correlation coefficient analysis. It is recalled that these statistical procedures are employed for the comparison of means related to the four abovementioned variables.

CHAPTER SUMMARY

This chapter has addressed the methodological aspects of the study. It started by evoking the ten research questions posed to drive the study, and went on to situate the present research design based on three domains proposed by Grotjahn (1987) to classify research: *data types, data collection methods, and data analysis procedures.* In regards to the *data types*, it was pointed out that the study drew on mixed methods research (qualitative and quantitative frameworks). As for the *data collection methods,* it was noted that the study was characterized by the use of a non-experimental model, due to prevalent use of surveys and questionnaires as the main data collection methods. With respect to the *data analysis procedures* it was observed that the study resorted on both statistical and interpretive frameworks to perform the analysis of the

data. This general outline of the research design was followed by a description of the methodological stages performed to attain the aims of the study. The chapter closed by presenting a description of the participants, instruments, and data collected involved in each of the methodological stages of the study. This outline evidenced that eight different groups of participants were involved, eight sets of data were collected from those participants, and seven instruments were used to collect the abovementioned sets of data.

Now that the methodological aspects of the study have been described, it is time to move to the results of the study, which are presented in the following chapter.

FOURTH PART:

Results

CHAPTER 5. RESULTS

CHAPTER OVERVIEW

The previous chapter focused on describing methodological aspects of the study. That chapter first set out the objectives and research questions posed in the study and then went on to describe its research design, including data types, data collection methods, and data analysis procedures. Then, the chapter presented details concerning the methodological moments or phases of the study. That last chapter finished with a description of the participants, instruments, and collected data, without providing specific details of the results. This chapter is conceived to present the results of the study and is divided into five sections, the first section (labeledas Section A: Results corresponding to the Development of the COBALTALI) is devoted to report the results related to the first macro objective of this study, which mainly deal with the development of the COBALTALI; the second section (labeledas Section B: Participants' Belief Description Stage) is designed to address the results related to the second objective of the study, which mainly have to do with the description of the beliefs Colombian university students of English, who are pursuing different university programs, hold about English language teaching and learning; the third section (labeledas Section C: Results of the COBALTALI Dimensionality

through a Quantitative Approach – Factor Analysis –), dealing with the first objective of the study, is dedicated to report the results related to the identification of the facets, subscales or dimensions of language learning beliefs that the COBALTALI address through its comprising item-beliefs; the fourth section (labeledas Section D: Results of the COBALTALI Reliability through a Quantitative Approach – Factor Analysis –), also aiming at the first objective of the study, is conceived to report the results that concern the reliability properties of the COBALTALI estimated through factor analysis; and the fifth, last, section (labeledas Section E: Results on the gender, English level, socioeconomic stratum, and age variables), dealing with the third main objective of the study, is dedicated to present the results related to the examination, from a quantitative approach, of the extent to which the variables of gender, English level, socioeconomic stratum, and age affect learners' beliefs about English language teaching and learning.

Evidently, this chapter deals with a varied set of results that emerged from both qualitative and quantitative frameworks. For the sake of clarity, in the following table (Table 9) each set of results addressed in this chapter is presented.

Table 9. Sets of results addressed in this chapter

SETS OF RESULTS	
Section A: Results Corresponding to the Development of the COBALTALI	
Set	**Main type of analysis**

I	Results of Core Domain Identification Stage	Literature review
II	Belief-Statements Generation Stage	Students' survey
III	Results of the Belief-Statements Depuration Stage	Researcher's item generation process
IV	Results of the Expert Panel Review Stage	Content validity assessment
V	Results of the Initial Content Validity Stage	Expert judgment
VI	Results of the Instrument Readability Assessment Stage	Expert judgment
VII	Results of the General Instrument Assessment Stage	Expert judgment
VIII	Results of the Instrument Dimensionality Stage	Expert judgment
IXa	Results of the Reliability Estimate Stage (Internal Consistency Reliability Estimate to the Dimensions Extracted through Expert Judgment)	Cronbach's Alpha Index
IXb	Results of the Reliability Estimate Stage (Stability Reliability Estimate to the Dimensions Extracted through Expert Judgment)	Correlation Coefficient Test-retest (Spearman ρ)
Section B: Results of the Participants' Belief Description Stage		
Set		**Main type of analysis**
I	Results on the Description of Students' Beliefs	Expert judgment
Section C: Results of the COBALTALI Dimensionality through a Quantitative Approach (Factor Analysis)		
Set		**Main type of analysis**
I	Results of the exploration of factors in the COBALTALI	Exploratory Factor Analysis with Principal Axis Factoring
II	Results pertaining to the analysis of sampling adequacy	Meyer-Olkin (KMO) Measure of Sampling Adequacy and the Bartlett's Test of Sphericity
III	Results of the factor rotation analysis	Principal Axis Factor Analysis with Promax Rotation
IV	Results of the labeling of the final extracted factors	Researcher's semantic analysis
Section D: Results of the COBALTALI Reliability through a Quantitative Approach (Factor Analysis)		
Set		**Main type of analysis**
I	Results of the internal consistency reliability estimate to the dimensions extracted through factor analysis	Cronbach's Alpha Index

II	Results of the stability reliability estimate to the dimensions extracted through factor analysis	Correlation coefficient test-retest (Spearman ρ)
III	Results of the labeling of the final extracted factors	Researcher's Semantic Analysis
IV	Results of the descriptive analysis to the four factors extracted empirically	Descriptive Statistics
Section E: Results on the Gender, English Level, Socioeconomic Stratum, and Age Variables		
Set		**Main type of analysis**
I	Results related to the gender variable	Student's t Test
II	Results related to the English level variable	ANOVA analysis and Post Hoc Test of Least Squares Difference (LSD)
III	Results related to the socioeconomic stratum variable	One-way ANOVA Analysis
IV	Results related to the age variable	Pearson's Correlation Coefficient

Following the previous table, the chapter first reports the results that pertain to the Development of the COBALTALI, which in essence deal with the construct validity of the target instrument, and then presents the results related to the Participants' Belief Description Stage. It then focuses on reporting the results that deal with the underlying dimensions (referred to as factors in this analysis) extracted on the participants' beliefs (data collected with the administration of the COBALTALI) through factor analysis and continues with the report of the set of results that address the reliability properties of the COBALTALI, based on the factors extracted on the participants' beliefs. The chapter closes with the results in regards to the exploration, using a quantitative approach on the aforementioned factors (dimensions), of the extent to which the variables of

gender, English level, socioeconomic stratum and age affect learners' beliefs about English language teaching and learning.

5.1. Section A: Results corresponding to the development of the COBALTALI

This first section of this chapter deals with the sets of results related to the first three research questions of the study. It starts by recalling the three target research questions and then proceeds to present each set of results. The first set of results relates to the validity evidence of the instrument under development (COBALTALI), thus addressing the first research question of the study. The second set has to do with the results pertaining to the dimensionality evidence of the COBALTALI estimated from a qualitative approach (expert judgment), which concerns the second research question. The third set of results has to do with the reliability evidence of the COBALTALI, specifically on internal consistency and stability reliability of such instrument, estimated through both qualitative approach (expert judgment) and a quantitative approach (statistical analyses), which concern the fourth research question of the study. Overall, the results presented in this first part of the chapter address the first objective of the study (the development of a sound language belief instrument) and, in turn, the psychometric properties of the COBALTALI.

5.1.1. Research questions addressed in the development of the COBALTALI

The results reported in this part of the study concern the following three research questions (questions 1, 2 and 4):

- Does the target instrument – COBALTALI – show evidence of validity?

- What dimensions of language learning beliefs, according to expert judgment, does the instrument – COBALTALI – focus on?

- What evidence of reliability does the target instrument – COBALTALI – show according to the dimensions of language learning beliefs identified through expert judgment?

It should be recalled that the dimensionality of the COBALTALI, is addressed in this part of the chapter from a qualitative approach (expert judgment), as can be elicited from the second research question. Further on, the dimensionality of the COBALTALI is again addressed but from a quantitative approach (factor analysis). Likewise, it is pertinent to point out that in this section of the chapter the reliability properties of the COBALTALI are addressed on the dimensions of language learning beliefs identified through expert judgment and further on, in another section of the chapter, this psychometric aspect of the COBALTALI is

tackled on the basis of the factors (dimensions) extracted through factor analysis. The reason to report the sets of results that obey to factor analyses in another section of the chapter is because the data to perform such factor analyses is gathered with the field administration of the COBALTALI: it corresponds to the description of the beliefs Colombian university students of English, who are pursuing different university programs, hold about English language teaching and learning.

Before turning the spotlight on the results it should be noted that in addressing research question 1 (Does the target instrument – COBALTALI – show evidence of validity?) seven methodological stages were designed, labeledas the Domain Identification Stage (I), the Belief-statements Generation Stage (II), the Belief-statements Depuration Stage (III), the Expert Panel Review Stage (IV), the Initial Content Validity Stage (V), the Instrument Readability Assessment Stage (VI), and the General Instrument Assessment Stage (VII). All these seven stages are included in what was called the Initial Developmental Phase.

To address research question 2 (What dimensions of language learning beliefs, according to expert judgment, does the instrument – COBALTALI – focus on?) a methodological stage, labeledas the Instrument Dimensionality Stage (VIII), was performed. This stage as well as the others performed to address the first and second research questions mentioned above were

intended to provide evidence of the extent to which the target instrument (COBALTALI) hold validity and the development of a valid and reliable inventory

In addressing research question 4 (What evidence of reliability does the target instrument – COBALTALI – show according to the dimensions of language learning beliefs identified through expert judgment?) another methodological stage was designed, labeled as the Reliability Estimate Stage (IX), which consisted of two methodological procedures or rather sub-stages: Internal Consistency Reliability Estimate and Stability Reliability Estimate.

Now, it is time to focus on the results proposed to be reported in this part of the study. It is worth noting that the results will be presented according to the order in which the stages to develop the COBALTALI took place. However, given that the first stage (the Domain Identification Stage), was only conceived to identify the content of interest through an extensive literature review, which was defined as learners' beliefs about language learning, the report of the results starts with those of the second stage (Belief-statements Generation Stage). In this respect, it may be convenient to remind that the definition provided by Victori and Lockhart (1995) about this construct was embraced in this study: "general assumptions that students hold about themselves as learners, about factors influencing language learning and about the nature of language teaching" (Victori & Lockhart, 1995, p. 224). The reason to embrace this definition is because it takes into account three important "realms" or

spectrums of language beliefs: it does not only consider the learners (who are main actors in the learning process) but also the factors that affect language learning and the nature of language teaching.

5.1.2. Results of the belief-statements generation stage

To begin with, it is recalled that this section is devoted to present the sets of results that concern the validity evidence of the target instrument (Colombian Beliefs about Language Learning and Teaching Inventory or COBALTALI), which deals with the first research question.

The results concerning the Belief-statements generation Stage (stage II) are the following: a total of 2,556 belief-statements were reported, through a survey (see the survey in Appendix A) by the 249 participating students from 4 universities located in Bogota, who were enrolled in an English program offered as a compulsory course (see the section on Participants above for more details about this sample). These results can be seen in Appendix E. A summary of this set of data is presented in Table 10.

Table 10. Summary of the first set of data

First Set of Data		
Participants	**Data Collection Method**	**Data Produced**

249 university students	Open-ended question survey	2,556 belief-statements

The survey was intended to report the respondents' most latent beliefs about English language teaching and learning. It should be noted that in administering the survey (see the survey in Appendix A) the participants were invited to report, in Spanish, the existing beliefs about English language teaching and learning in Colombia, with the help of nine areas or domains concerning English learning (i. e. Rol del Aprendiz, Ambiente de Aprendizaje, Recursos de Aprendizaje, Motivación, Macrohabilidades Comunicativas (Hablar, Leer, Escuchar, Escribir), Género y Edad, Condiciones Económicas, Experiencias en el Aprendizaje, and Currículo y Evaluación)[5]; and four areas related to English teaching (i.e. Perfil y Rol del Docente, Ambiente de Enseñanza, Enfoques Pedagógicos (Metodologías)[6], and Recursos de Enseñanza). The respondents were notified that the objective was to obtain relevant data — beliefs — to generate the items for the intended instrument (COBALTALI). Furthermore, it is important to highlight that the data collected, as can be seen in Appendix E, included belief-statements that can be grouped into elusive or ambiguous and clear statements. Examples of these types of belief statements are shown in Table 11.

[5] Role of Learner, Learning Environment, Learning resources, Motivation, Communicative macroskills (Speaking, Reading, Listening, Writing), Gender and Age, Economic Conditions, Learning Experience, and Curriculum and Assessment.

[6] Teacher's Profile and Role, Teaching environment, Pedagogical Approaches (Methodologies) and Teaching Resources.

Table 11. Example of belief-statements collected

Examples of belief-statements collected	
Fuzzy or ambiguous	**Clear**
La enseñanza es algo positivo	Para aprender inglés se necesita viajar a países de habla inglesa
Materiales de apoyo	Es mejor el inglés británico que el americano
Aprender a distinguir los verbos	Para aprender inglés es necesario escuchar música en inglés

In view of this situation, the researcher carried out a process of belief-statement depuration to obtain proper items for the target instrument, which is described in the following section.

5.1.3. Results of the belief-statements depuration stage

The results concerning the Belief-Statements Depuration Stage are the following: the 2,556 belief-statements, reported by the 249 participating students, turned into a pool of 72 provisional items, through the process of depuration, discard and semantic synthesis made by the researcher. These results are shown in Table 12.

Table 12. Provisory set of items

1	Para aprender inglés es necesario ir a un país de habla inglesa	To learn English it is necessary to go to an English speaking country
2	Escuchar música en inglés favorece el aprendizaje	Listening to music in English facilitates English learning
3	En clase de inglés se debe enfatizar en el aprendizaje de vocabulario	In English class the learning of vocabulary should be emphasized
4	Para aprender inglés se requiere de práctica	To learn English practice is required

5	Las actividades audiovisuales son importantes para el aprendizaje del inglés	Audiovisual activities are important when learning English
6	La enseñanza del inglés debe ser didáctica y lúdica	English teaching should be didactic and didactic
7	La pedagogía y el conocimiento del docente son importantes para la enseñanza del inglés	Teacher's pedagogy and knowledge are important for English teaching
8	Para el aprendizaje del inglés es importante la enseñanza explicita de la gramática	Explicit teaching of grammar is important for English learning
9	Para aprender inglés se necesita de interés/actitud para lograrlo	To learn English it is necessary to show attitude and interest to achieve it
10	Aprender inglés es más fácil si se hace desde niño	Learning English is easier if it is done since it is a child
11	Para aprender inglés es necesario dedicarle tiempo todos los días	It is necessary to devote time every day to learn English
12	Para aprender inglés es necesario practicar la habilidad de escucha	To learn English it is necessary to practice listening skill
13	Las clases de inglés deben ser principalmente conversacionales	English classes should be primarily conversational
14	En clase de inglés se debe hablar un 100% en inglés in	In English class the use of English should be 100%
15	En clase de inglés se puede recurrir al español	In English class you can resort to Spanish
16	El profesor de inglés debe enfatizar mucho en la pronunciación	English teachers should make much emphasis on pronunciation
17	Para aprender inglés es necesario contar con diversos recursos o materiales de clase (libros, Cds, ayudas audiovisuales,etc.)	To learn English it is necessary to have different resources or classroom materials, such as books, cds, audiovisual aids and technological aids
18	Es importante aprender inglés	It is important to learn English
19	Para aprender inglés se necesita de espacios que favorezcan su aprendizaje	To learn English it is necessary to count on spaces that promote learning
20	Para aprender inglés es importante hacer ejercicios de lecturas en inglés	It is important to do English reading exercises when learning English
21	Para aprender inglés es necesario saber acerca de los países de habla inglesa	To learn English it is necessary to know about English-speaking countries
22	Para aprender inglés es necesario interactuar con personas cuya lengua nativa es el inglés	To learn English it is necessary to interact with people whose native language is English
23	Los profesores de inglés deben ser de un país de habla inglesa	English teachers should be from an English-speaking country
24	Cuanto más personalizada sea la clase de inglés, más se aprende	The more personalized the English class is, the more you learn
25	La enseñanza del inglés debería estar centrada en situaciones cotidianas	English teaching should be focused on everyday situations
26	Para aprender inglés es importante realizar trabajos extra clase	It is important to do extra class work to learn English
27	Es mejor el inglés británico que el americano	British English is better than American English
28	Es más importante la pronunciación que el acento	Pronunciation is more important than accent
29	El uso de la tecnología en la enseñanza del inglés favorece su aprendizaje	The use of technology in English teaching promotes English language learning
30	Realizar ejercicios de traducción favorece el aprendizaje del inglés	Translation exercises promotes English language learning
31	En clase de inglés es importante realizar ejercicios de escritura	In English class it is important to perform writing exercises
32	Es importante que el profesor de inglés enfoque su enseñanza en la superación de las debilidades de sus estudiantes	It is important that English teachers focus on helping their students overcome their weaknesses
33	Se debe enseñar tanto inglés americano como británico	It should be taught both American and British English
34	En clase se debería enfatizar más en el desarrollo de la habilidad de habla y escucha	In English class it should be emphasized more on the development of speaking and listening skills
35	Para aprender inglés es necesario tener una enseñanza más intensiva	To learn English it is necessary to have a more intensive instruction
36	Es muy difícil aprender inglés en un país de habla hispana	It is very difficult to learn English in a Spanish-speaking country
37	El inglés es un idioma difícil de aprender	English is a difficult language
38	Para aprender inglés es importante una buena interrelación estudiante – docente	To learn English it is important to establish a good student-teacher interrelationship
39	Para aprender inglés es necesario pensar en inglés	To learn English you need to think in English
40	Es importante que el docente de inglés haya estado en un país de habla inglesa	It is important that the English teacher have been in an English speaking country
41	La enseñanza del inglés se debería integrar en la enseñanza de otras asignaturas	English teaching should be integrated into the teaching of other subjects
42	Los cursos de inglés por internet son recursos valiosos para apoyar el aprendizaje del inglés	English courses online are valuable resources to support learning English

43	El profesor de inglés debe motivar a sus estudiantes a aprender ese idioma	An English teacher must motivate their students to learn the language
44	La enseñanza del inglés debe ser más práctica que teórica	English teaching should be more practical than theoretical
45	Se debería procurar en que el alumno desarrolle fluidez verbal	Efforts should be made to help students acquire English language fluency
46	Un profesor de inglés debe tener en cuenta el nivel de conocimiento del idioma de cada estudiante	An English teacher must take into account the level of English language proficiency of each student
47	Es importante realizar intercambios estudiantiles con países de habla inglesa para aprender inglés	It is important that students participate in student exchange programs held in English speaking countries to learn English
48	Se deben innovar las metodologías para la enseñanza del inglés	English teaching methodologies must be innovative
49	Para aprender inglés se necesita de un tutor o profesor	To learn English it is necessary to have a tutor or teacher
50	Las personas mayores de edad presentan mayor dificultad para aprender inglés	Old people have more difficulties (than young people) when learning English
51	El acceso a una enseñanza de inglés con calidad depende de factores financieros	Access to quality English teaching depends on financial factors
52	Si no se practica el inglés se olvida	If English is not practiced, it is forgotten
53	La pronunciación del inglés es difícil de aprender	English pronunciation is difficult to learn
54	Para aprender inglés se debe estudiar en colegios bilingües	To learn English it is necessary to study it in bilingual schools
55	Para aprender inglés es necesario estudiarlo de manera presencial	To learn English it is necessary to study it in person or face-to-face
56	En clase de inglés se debería hacer más énfasis en la habilidad de habla	In English class it should be emphasized more on the development of speaking skills
57	En clase de inglés las actividades orales en grupo facilitan el aprendizaje	In English class oral activities in group facilitate English language learning
58	La exigencia por parte del docente al estudiante es importante para el aprendizaje del inglés	It is important that teachers demand more from students to learn English
59	Las actividades competitivas en clase estimulan el interés del estudiante por el aprendizaje del inglés	Competitive activities in class promote learners' interest in English language learning
60	Ejercicios de repetición favorecen el aprendizaje del inglés	Repetition exercises facilitate English language learning
61	Cuando se quiere aprender inglés se puede	When you want to learn English you can learn it
62	El aprendizaje del inglés se le facilita más a unas personas que a otras	Learning English is easier for some people than for others
63	Es importante tener en cuenta las opiniones de los estudiantes	It is important to take into account the views of students
64	Un profesor de inglés debe corregir al estudiante en el momento que sea necesario	An English teacher should correct the student when necessary
65	En clase de inglés es más importante hacer énfasis en la habilidad de habla que en la gramática	In English class it is more important to make more emphasis on the speaking skill than on grammar issues
66	El profesor de inglés debe tener muy buena pronunciación en inglés	An English teacher must have very good English pronunciation
67	Cantar en inglés favorece el aprendizaje del inglés	Singing in English facilitates English language learning
68	Para aprender inglés es necesario tener disciplina	To learn English you need to have discipline
69	Es importante que el docente enseñe al estudiante cómo aprender	It is important that English teachers teach their students how to learn
70	La clase de inglés no se debería basar únicamente en el libro de clase	English class should not be based solely on the class book
71	La enseñanza mediada con imágenes favorece el aprendizaje del inglés	English language teaching mediated by images facilitates English language learning
72	En clase de inglés es necesario profundizar más en lo enseñado	In English class it is necessary to go deeper into what is taught

It may be convenient to recall that the transformation of the 2,556 belief statements into 72 items was based on the seven rules Dörnyei (2003) points out in item wording: 1) aim for short and simple items; 2) use simple and natural languages; 3) avoid ambiguous or loaded words and sentences; 4) avoid negative constructions; 5) avoid double-barreled questions; 6) avoid items that are likely to be answered the same way by everybody; and 7) include both positively and negatively worded items (p.52-56). The following table (Table 13) presents some examples of this process.

Table 13. Examples of transformation of the 2,556 belief statements into 72 items[7]

Belief-statements reported	Procedure of item refinement	Belief-statements after item refinement process
• Para aprender a hablar inglés es bueno ir a países donde se pueda practicar mucho • Para aprender inglés es necesario viajar a países de habla inglesa • Es necesario ir a países para practicar • Para reforzar éste idioma es adecuado y sería indispensable ir a un país de habla inglesa	Semantic synthesis	Para aprender inglés es necesario ir a un país de habla inglesa
• Material de apoyo más allá de libros, ejemplo películas provenientes de estos países • Para aprender inglés se necesitan herramientas tecnológicas • Un profesor debe utilizar herramientas tecnológicas	Simple and natural language	El uso de la tecnología en la enseñanza del inglés favorece su aprendizaje Es importante que el

[7] Table 13 is translated into English in Appendix J

• Yo pienso que es importante que el profesor haya tenido experiencia vivencial tomando o estando en un país de habla inglesa para poder enseñar mejor	Aim for short and simple items	docente de inglés haya estado en un país de habla inglesa
• Con ayuda de canciones **y** de juegos didácticos es más fácil hablar y escribir el inglés • Se debe hablar en inglés todo el tiempo **y** ser lo más conciso posible	Avoid double-barreled questions/statements	• Cantar en inglés favorece el aprendizaje del inglés • En clase de inglés se debe hablar un 100% en inglés
• Materiales de apoyo • Aprender a distinguir los verbos • Concentración	Discard	

It is important to point out that the participants involved in this stage of the study reported a substantial number of belief-statements that were elusive, incomplete or ambiguous, as can be seen in Appendix E, and therefore were discarded by the researcher in a depuration process. Also, it is pertinent to highlight that despite this limitation, the data collected was useful to generate a considerable number of items for the target instrument, as can be seen in Table 12 above.

Once a provisory set of items for the COBALTALI was obtained, the next step was to assess, through an expert panel review, whether the abovementioned process (synthesis or transformation of the 2556 belief statements into 72 items) was done properly. The results of such new procedure are described in the next section.

5.1.4. Results of the expert panel review stage

This stage had the purpose of providing item content validity evidence by reviewing, through a survey, whether the 2,556 belief statements collected in the Belief-statements generation Stage were well-represented by the 72 items identified in the Belief-statements depuration stage. It also aimed at assessing the wording quality of these 72 items. It should be recalled that the participants in this stage involved three content expert panelists (referred to as judges) holding PhD and with extensive experience in language research (see chapter 4 for more details about these participants).

The results concerning the Expert Panel Review Stage are the following: the experts' judgment revealed that the synthesis of the 2,556 initial beliefs into the 72 items was appropriate in general terms. However, it was suggested to delete seven items (see Table 14) because they were elusive, ambiguous or irrelevant. These modifications resulted in a sixty-five item instrument.

Table 14. Items deleted as a results of the Expert Panel Review Stage

Para aprender inglés se debe estudiar en colegios bilingües	To learn English it is necessary to study it in bilingual schools
Es importante tener en cuenta las opiniones de los estudiantes	It is important to take into account the views of students
El profesor de inglés debe tener muy buena pronunciación en inglés	An English teacher must have very good English pronunciation
Para aprender inglés es necesario tener disciplina	To learn English you need to have discipline
La clase de inglés no se debería basar	English class should not be based

únicamente en el libro de clase	solely on the class book
La enseñanza mediada con imágenes favorece el aprendizaje del inglés	English language teaching mediated by images facilitates English language learning
En clase de inglés es necesario profundizar más en lo enseñado	In English class it is necessary to go deeper into what is taught

It should be noted that the judgment issued in this stage concerning the items shown in Table 14 was not a consensual conclusion among the three judges, but sometimes it was a judgment made by only one member of the panel. Despite the fact that it was not a consensual judgment, the researcher considered pertinent to discard these items from the inventory (COBALTALI). This decision was motivated by the researcher's objective of developing a short inventory (or questionnaire), which is congruent with Dörnyei's (2003) opinion: "in questionnaire design less is often more because long questionnaires can become counterproductive" (p. 18).

After adopting the changes suggested in the Expert Panel Review Stage a new set of items were retained to comprise the COBALTALI. That set of items is presented in Table 15.

Table 15. Set of items retained after the Expert Panel Review Stage

1	Para aprender inglés es necesario ir a un país de habla inglesa	To learn English it is necessary to go to an English speaking country
2	Escuchar música en inglés favorece el aprendizaje	Listening to music in English facilitates English learning
3	En clase de inglés se debe enfatizar en el aprendizaje de vocabulario	In English class the learning of vocabulary should be emphasized
4	Para aprender inglés se requiere de práctica	To learn English practice is required

5	Las actividades audiovisuales son importantes para el aprendizaje del inglés	Audiovisual activities are important when learning English
6	La enseñanza del inglés debe ser didáctica y lúdica	English teaching should be didactic and ludic
7	La pedagogía y el conocimiento del docente son importantes para la enseñanza del inglés	Teacher's pedagogy and knowledge are important for English teaching
8	Para el aprendizaje del inglés es importante la enseñanza explicita de la gramática	Explicit teaching of grammar is important for English learning
9	Para aprender inglés se necesita de interés/actitud para lograrlo	To learn English it is necessary to show attitude and interest to achieve it
10	Aprender inglés es más fácil si se hace desde niño	Learning English is easier if it is done since it is a child
11	Para aprender inglés es necesario dedicarle tiempo todos los días	It is necessary to devote time every day to learn English
12	Para aprender inglés es necesario practicar la habilidad de escucha	To learn English it is necessary to practice listening skills
13	Las clases de inglés deben ser principalmente conversacionales	English classes should be primarily conversational
14	En clase de inglés se debe hablar un 100% en inglés	In English class the use of English should be 100%
15	En clase de inglés se puede recurrir al español	In English class you can resort to Spanish
16	El profesor de inglés debe enfatizar mucho en la pronunciación	English teachers should make much emphasis on pronunciation
17	Para aprender inglés es necesario contar con diversos recursos o materiales de clase (libros, Cds, ayudas audiovisuales,etc.)	To learn English it is necessary to have different resources or classroom materials, such as books, cds, audiovisual aids and technological aids
18	Es importante aprender inglés	It is important to learn English
19	Para aprender inglés se necesita de espacios que favorezcan su aprendizaje	To learn English it is necessary to count on spaces that promote learning
20	Para aprender inglés es importante hacer ejercicios de lecturas en inglés	It is important to do English reading exercises when learning English
21	Para aprender inglés es necesario saber acerca de los países de habla inglesa	To learn English it is necessary to know about English-speaking countries
22	Para aprender inglés es necesario interactuar con personas cuya lengua nativa es el inglés	To learn English it is necessary to interact with people whose native language is English
23	Los profesores de inglés deben ser de un país de habla inglesa	English teachers should be from an English-speaking country
24	Cuanto más personalizada sea la clase de inglés, más se aprende	The more personalized the English class is, the more you learn
25	La enseñanza del inglés debería estar centrada en situaciones cotidianas	English teaching should be focused on everyday situations
26	Para aprender inglés es importante realizar trabajos extra clase	It is important to do extra class work to learn English
27	Es mejor el inglés británico que el americano	British English is better than American English
28	Es más importante la pronunciación que el acento	Pronunciation is more important than accent
29	El uso de la tecnología en la enseñanza del inglés favorece su aprendizaje	The use of technology in English teaching promotes English language learning
30	Realizar ejercicios de traducción favorece el aprendizaje del inglés	Translation exercises promotes English language learning
31	En clase de inglés es importante realizar ejercicios de escritura	In English class it is important to perform writing exercises
32	Es importante que el profesor de inglés enfoque su enseñanza en la superación de las debilidades de sus estudiantes	It is important that English teachers focus on helping their students overcome their weaknesses
33	Se debe enseñar tanto inglés americano como británico	It should be taught both American and British English
34	En clase se debería enfatizar más en el desarrollo de la habilidad de habla y escucha	In English class it should be emphasized more on the development of speaking and listening skills
35	Para aprender inglés es necesario tener una enseñanza más intensiva	To learn English it is necessary to have a more intensive instruction
36	Es muy difícil aprender inglés en un país de habla hispana	It is very difficult to learn English in a Spanish-speaking country
37	El inglés es un idioma difícil de aprender	English is a difficult language
38	Para aprender inglés es importante una buena interrelación estudiante – docente	To learn English it is important to establish a good student-teacher interrelationship
39	Para aprender inglés es necesario pensar en inglés	To learn English you need to think in English
40	Es importante que el docente de inglés haya estado en un país de habla inglesa	It is important that the English teacher have been in an English speaking country
41	La enseñanza del inglés se debería integrar en la enseñanza de otras asignaturas	English teaching should be integrated into the teaching of other subjects
42	Los cursos de inglés por internet son recursos valiosos para apoyar el aprendizaje del inglés	English courses online are valuable resources to support learning English

43	El profesor de inglés debe motivar a sus estudiantes a aprender ese idioma	An English teacher must motivate their students to learn the language
44	La enseñanza del inglés debe ser más práctica que teórica	English teaching should be more practical than theoretical
45	Se debería procurar en que el alumno desarrolle fluidez verbal	Efforts should be made to help students acquire English language fluency
46	Un profesor de inglés debe tener en cuenta el nivel de conocimiento del idioma de cada estudiante	An English teacher must take into account the level of English language proficiency of each student
47	Es importante realizar intercambios estudiantiles con países de habla inglesa para aprender inglés	It is important that students participate in student exchange programs held in English speaking countries to learn English
48	Se deben innovar las metodologías para la enseñanza del inglés	English teaching methodologies must be innovative
49	Para aprender inglés se necesita de un tutor o profesor	To learn English it is necessary to have a tutor or teacher
50	Las personas mayores de edad presentan mayor dificultad para aprender inglés	Old people have more difficulties (than young people) when learning English
51	El acceso a una enseñanza de inglés con calidad depende de factores financieros	Access to quality English teaching depends on financial factors
52	Si no se practica el inglés se olvida	If English is not practiced, it is forgotten
53	La pronunciación del inglés es difícil de aprender	English pronunciation is difficult to learn
54	Para aprender inglés es necesario estudiarlo de manera presencial	To learn English it is necessary to study it in person or face-to-face
55	En clase de inglés se debería hacer más énfasis en la habilidad de habla	In English class it should be emphasized more on the development of speaking skills
56	En clase de inglés las actividades orales en grupo facilitan el aprendizaje	In English class oral activities in group facilitate English language learning
57	La exigencia por parte del docente al estudiante es importante para el aprendizaje del inglés	It is important that teachers demand more from students to learn English
58	Las actividades competitivas en clase estimulan el interés del estudiante por el aprendizaje del inglés	Competitive activities in class promote learners' interest in English language learning
59	Ejercicios de repetición favorecen el aprendizaje del inglés	Repetition exercises facilitate English language learning
60	Cuando se quiere aprender inglés se puede	When you want to learn English you can learn it
61	El aprendizaje del inglés se le facilita más a unas personas que a otras	Learning English is easier for some people than for others
62	Un profesor de inglés debe corregir al estudiante en el momento que sea necesario	An English teacher should correct the student when necessary
63	En clase de inglés es más importante hacer énfasis en la habilidad de habla que en la gramática	In English class it is more important to make more emphasis on the speaking skill than on grammar issues
64	Cantar en inglés favorece el aprendizaje del inglés	Singing in English facilitates English language learning
65	Es importante que el docente enseñe al estudiante cómo aprender	It is important that English teachers teach their students how to learn

As can be seen in Table 15, a set of 65 items were retained to comprise the target instrument: COBALTALI. This set of items was subjected to more refinement processes in the following methodological stages.

Overall, the results reported so far constitute themselves as content validity evidence of the items intended to comprise the instrument under development (COBALTALI). Concretely, these results provide evidence not only of the item sources, such as how they were generated and who generated them, but also

of content validity properties of the items. It is important to remind here, as stated earlier in the literature reviewed, that the methodological rigor with which the items in a measuring research are generated and their content validity is estimated, plays an important role at the time of interpreting the psychometric properties of a measuring instrument. Thus, concerning the first research question formulated in this study (Does the target instrument –COBALTALI- show evidence of validity?), although other procedures presented below provide more evidence, at this stage it can be answered that its items exhibit, based on expert judgment, appropriate item wording quality, which indicates adequate item content validity.

5.1.5. Results of the initial content validity stage

This section is dedicated to report the results of the Initial Content Validity Stage, which constitute more attempts to provide evidence of content validity. For the sake of clarity, before presenting such results, contextual details of this stage are discussed.

Once the set of items for the COBALTALI was generated and subjected to some wording refinement processes (see previous stages), this stage was designed to assess two aspects of the 65 retained items: their representativeness to the general construct or content of interest under investigation (beliefs about English language teaching and learning) and their

degree of “cultural sensitivity”. It is worth noting that assessing items representativeness to the general construct or content of interest under investigation is of paramount importance when attempting to evidence content validity. Note that content validity is viewed as “the degree to which elements of an assessment instrument are relevant to and representative of the targeted construct for a particular assessment purpose” (Haynes, Richard, & Kubany, 1995, p. 238). Furthermore, note that to obtain items with adequate wording quality they must be devoid of *cultural sensitivity*. In this respect, it is important to say that an item with a degree of *cultural sensitivity* is taken on in this study as an item that can make the respondent feel bad because its meaning can sound disrespectful, ambiguous or inappropriate. In addition, it is recalled that Bogotá, where the COBALTALI is planed to be administered for this study, is a multicultural city where a plethora of groups of people from different regions of the country, all with their own customs, cultures and traditions, live.

For this purpose, three professionals in language teaching with postgraduate studies in applied linguistics were asked to issue an expert judgment through a survey. The survey (see Appendix C) exhibited a scale from 1 to 4, in which each expert was asked to rank each item according to the following criteria: 1=not important to include in survey; 2=somewhat important to include in survey, 3=important to include in survey, and 4=extremely important to include in survey. Additionally, in the survey (see Appendix C), the expert panel was asked to indicate which items could present *cultural sensitivity*. In doing so, each expert was notified that the construct of interest was beliefs about English

language teaching and learning (also referred to as language learning beliefs throughout this study).

An aspect to be considered about this three-expert panel is that there is enough evidence suggesting that they are the right people to assess the retained items' representativeness to the general construct or content of interest but there is no evidence indicating that these panelists are experts in tasks related to the assessment of cultural sensitivity in items for research instruments. However, as professionals in language teaching with postgraduate studies in applied linguistics one could presumably think that they have the capacity to assess whether one item can sound disrespectful, ambiguous or inappropriate for any Colombian university respondent.

Concerning the results of this stage, the expert judgment revealed, on the one hand, that only **nine items** exhibited either a low degree of representativeness to the construct under investigation or a lack of importance to include in the survey (see Table 16), and, on the other hand, that none of the items exhibited cultural sensitivity.

Table 16. Result of the initial content validity stage

ITEMS DELETED BECAUSE OF LOW DEGREE OF REPRESENTATIVENESS TO THE CONSTRUCT OR A LACK OF IMPORTANCE	
Para aprender inglés se necesita de espacios que favorezcan su aprendizaje	To learn English it is necessary to count on spaces that promote learning
El uso de la tecnología en la enseñanza del	The use of technology in English teaching

inglés favorece su aprendizaje	promotes English language learning
Es importante que el profesor de inglés enfoque su enseñanza en la superación de las debilidades de sus estudiantes	It is important that English teachers focus on helping their students overcome their weaknesses
Para aprender inglés es necesario tener una enseñanza más intensiva	To learn English it is necessary to have a more intensive instruction
Un profesor de inglés debe tener en cuenta el nivel de conocimiento del idioma de cada estudiante	An English teacher must take into account the level of English language proficiency of each student
Es importante realizar intercambios estudiantiles con países de habla inglesa para aprender	It is important that students participate in student exchange programs held in English speaking countries to learn English
El acceso a una enseñanza de inglés con calidad depende de factores financieros	Access to quality English teaching depends on financial factors
Para aprender inglés se requiere de práctica	To learn English practice is required
La pedagogía y el conocimiento del docente son importantes para la enseñanza del inglés	Teacher's pedagogy and knowledge are important for English teaching

Although the nine items presented in the table above were pointed out as holding either a low degree of representativeness to the construct under investigation or a lack of importance, by the panel of experts, this does not mean that all the three judges agreed on each item judgment. Thus, this judgment was not a consensual conclusion among the three judges, but sometimes it was a judgment made by only one member of the panel. Having clarified this fact, it is also important to underline that the researcher decided to delete these items from the inventory. This decision was encouraged by three

reasons. First, because they were pointed out by at least one of these members of the expert panel as having either a low degree of representativeness to the construct under investigation or a lack of relevance. Second because after a further analysis of those items, it was concluded that these items either held an “ambiguous semantic scope”, which might lead to confusion when operating them in the study. An example of this is the item “el uso de la tecnología en la enseñanza del inglés favorece su aprendizaje”, in which one can wonder about what kind of technology it refers to. Other items could entail obvious or indubitable assumptions, as it is the case with the item “para aprender inglés se necesita de espacios que favorezcan su aprendizaje”, which presumably is a logical conclusion. Third, because the researcher advocates the idea that short and focused surveys get the best response rates (Dörnyei, 2003). In this respect it should be noted that although there is no well-supported evidence in the experimental literature to guide the practitioners in survey decisions about survey length, as it is stated by Bogen (1996), the common sense suggests that a long inventory (taken as survey or questionnaire) might affect the respondent’ motivation to address a survey, and thus the answers may be lack of quality.

The deletion of the nine items mentioned above resulted in a new set of 56 items to comprise the COBALTALI. These items are shown in Table 17.

Table 17. Set of items retained after the Initial Content Validity Stage

1	Para aprender inglés es necesario ir a un país de habla inglesa
2	Escuchar música en inglés favorece el aprendizaje
3	En clase de inglés se debe enfatizar en el aprendizaje de vocabulario
4	Las actividades audiovisuales son importantes para el aprendizaje del inglés
5	La enseñanza del inglés debe ser didáctica y lúdica
6	Para el aprendizaje del inglés es importante la enseñanza explicita de la gramática
7	Para aprender inglés se necesita de interés/actitud para lograrlo
8	Aprender inglés es más fácil si se hace desde niño
9	Para aprender inglés es necesario dedicarle tiempo todos los días
10	Para aprender inglés es necesario practicar la habilidad de escucha
11	Las clases de inglés deben ser principalmente conversacionales
12	En clase de inglés se debe hablar un 100% en inglés
13	En clase de inglés se puede recurrir al español
14	El profesor de inglés debe enfatizar mucho en la pronunciación
15	Para aprender inglés es necesario contar con diversos recursos o materiales de clase (libros, Cds, ayudas audiovisuales,etc.)
16	Es importante aprender inglés
17	Para aprender inglés es importante hacer ejercicios de lecturas en inglés
18	Para aprender inglés es necesario saber acerca de los países de habla inglesa
19	Para aprender inglés es necesario interactuar con personas cuya lengua nativa es el inglés
20	Los profesores de inglés deben ser de un país de habla inglesa
21	Cuanto más personalizada sea la clase de inglés, más se aprende
22	La enseñanza del inglés debería estar centrada en situaciones cotidianas
23	Para aprender inglés es importante realizar trabajos extra clase
24	Es mejor el inglés británico que el americano
25	Es más importante la pronunciación que el acento
26	Realizar ejercicios de traducción favorece el aprendizaje del inglés
27	En clase de inglés es importante realizar ejercicios de escritura
28	Se debe enseñar tanto inglés americano como británico
29	En clase se debería enfatizar más en el desarrollo de la habilidad de habla y escucha
30	Es muy difícil aprender inglés en un país de habla hispana
31	El inglés es un idioma difícil de aprender
32	Para aprender inglés es importante una buena interrelación estudiante – docente
33	Para aprender inglés es necesario pensar en inglés
34	Es importante que el docente de inglés haya estado en un país de habla inglesa
35	La enseñanza del inglés se debería integrar en la enseñanza de otras asignaturas
36	Los cursos de inglés por internet son recursos valiosos para apoyar el aprendizaje del inglés
37	El profesor de inglés debe motivar a sus estudiantes a aprender ese idioma
38	La enseñanza del inglés debe ser más práctica que teórica
39	Se debería procurar en que el alumno desarrolle fluidez verbal
40	Se deben innovar las metodologías para la enseñanza del inglés
41	Para aprender inglés se necesita de un tutor o profesor
42	Las personas mayores de edad presentan mayor dificultad para aprender inglés
43	Si no se practica el inglés se olvida
44	La pronunciación del inglés es difícil de aprender
45	Para aprender inglés es necesario estudiarlo de manera presencial
46	En clase de inglés se debería hacer más énfasis en la habilidad de habla
47	En clase de inglés las actividades orales en grupo facilitan el aprendizaje
48	La exigencia por parte del docente al estudiante es importante para el aprendizaje del inglés
49	Las actividades competitivas en clase estimulan el interés del estudiante por el aprendizaje del inglés
50	Ejercicios de repetición favorecen el aprendizaje del inglés
51	Cuando se quiere aprender inglés se puede
52	El aprendizaje del inglés se le facilita más a unas personas que a otras
53	Un profesor de inglés debe corregir al estudiante en el momento que sea necesario
54	En clase de inglés es más importante hacer énfasis en la habilidad de habla que en la gramática
55	Cantar en inglés favorece el aprendizaje del inglés
56	Es importante que el docente enseñe al estudiante cómo aprender

Before going on to the next instances of this phase, it is important to highlight that each stage has constituted as a continuous refinement process of the target instrument (COBALTALI) leading to other instrument refining stages.

5.1.6. Results of the instrument readability assessment stage

As another attempt to obtain evidence of content validity of the instrument, in this stage a three-expert panel (who only participated for this purpose, in this stage once) had the aim of assessing, through a survey (see appendix F) the clarity and readability properties of the 56 retained items intended to comprise the new instrument. These experts included a participant with a PhD in applied linguistics and extensive experience in English language research, another one with a magister in foreign language teaching, dedicated to English language teaching, and a professional with a Bachelor degree in English language teaching, dedicated to material design for English language teaching.

The results of this round of item clarity and readability assessment resulted in minor changes in the wording of four items and the conversion of one item into two (see Table 18).

Table 18. Changes suggested in the Instrument readability assessment stage

Changes in wording	
Wording made by the	**Wording made by the expert judges**

participants	
Escuchar música en inglés favorece el aprendizaje	Escuchar música en inglés favorece el aprendizaje de la lengua inglesa
Para aprender inglés es necesario dedicarle tiempo todos los días	Para aprender inglés es necesario dedicarle tiempo todos, o casi todos, los días
Las clases de inglés deben ser principalmente conversacionales	Las clases de inglés deben basarse en interacciones habladas o diálogos
Se debería procurar en que el alumno desarrolle fluidez verbal	Se debería procurar en que el alumno desarrolle fluidez en el idioma inglés
Conversion of one item into two new items	
La enseñanza del inglés debe ser didáctica y lúdica	La enseñanza del inglés debe ser didáctica
	La enseñanza del inglés debe ser lúdica

Concerning the suggested expert panel's changes in item wording presented in the table above, it is pertinent to clarify that these results did not emerge from a consensual agreement by the members comprising the expert panel. In fact, there were cases in which only one judge (expert panelist) suggested a certain wording change. Importantly, although the expert judgment did not result in a consensual judgment by all the three judges, these changes were adopted by the researcher because he considered that they contributed to item precision. For example, the item "la enseñanza del inglés debe ser didáctica y lúdica" is a double-barreled item because it is addressing two separate issues: "didáctica" and "lúdica", which should be avoided in item wording for questionnaires (Dörnyei, 2003).

With the incorporation of these changes a new fifty-seven-item version of the COBALTALI was developed, and a new instrument refinement stage took place (the general instrument feasibility assessment stage), which is presented in the following stage.

5.1.7. Results of the general instrument assessment stage

The results of the previous stages dealt with the content validity evidence of the items intended to comprise the target instrument (Colombian Beliefs about Language Learning and Teaching Inventory or COBALTALI), but not of other parts that comprise this measuring instrument, such as the wording of the introduction paragraph, the personal information section, and the instruction section. Consequently, this stage was designed to perform a general assessment of each part of the novel instrument (COBALTALI) by a new judge panel. For the sake of clarity some contextual details of this stage are presented.

The judge team consisted of 10 university students, enrolled in an English course and in a major in psychology, who voluntarily served as an expert panel. This panel was purposively selected because, as mentioned earlier in the Participants section 1) they voluntarily accepted to participate, 2) they were university English learners with similar socio-demographic characteristics to the participants intended to be administered the instrument in the Participants'

Belief Description Stage, and 3) they had knowledge of research instrument development, specifically of content validity in measuring instruments.

The judge panel was asked to assess, through a survey, the degree of clarity in the wording of the introduction paragraph, the personal information section, and the instruction section, through the following criteria: “deficiente” (poor), “aceptable” (fair), “buena” (good), and “excelente” (excellent). Additionally, they were also asked to assess the items shaping the COBALTALI in terms of their wording clarity.

For this purpose, the researcher designed a COBALTALI survey format, in a Spanish language paper version (see Appendix G) consisting of a name of the survey (Inventario de Creencias sobre la Enseñanza y Aprendizaje del Inglés -BALTALI-), a survey presentation paragraph, a participant demographic data section, instructions, and pool of items with an answer five-point Likert-type scale ranging from 1 (Plenamente de acuerdo) to 5 (Totalmente en desacuerdo) with a neutral midpoint (Ni de acuerdo ni en desacuerdo). That survey (COBALTALI) was provided to the judge panel with an additional Spanish survey (see Appendix H) for them to perform the assessment.

In regards to the results of this stage, the aforementioned assessment revealed satisfactory results: nine (out of ten) judges reported that the introduction paragraph, the personal information section, and the instruction section exhibited a high degree of clarity in their wording (excellent) and one

judge (the remaining one) reported that the introduction paragraph, the personal information section, and the instruction section exhibited a good degree of clarity in their wording. In Table 19 these results are outlined.

Table 19. Results of the general instrument assessment stage

JUDGE PANEL'S ASSESSMENT		
Parts of the survey (BALTALI)	**Judgment on wording clarity**	**% of Judges**
• The Introduction Paragraph • The Personal Information Section • The Instruction Section	Excellent	90% of the judges
	Good	10% of the judges

As for the judge panel's assessment on the wording clarity of the 57 retained items for the COBALTALI the results revealed that the 80% of the judges consider that all the 57 retained items exhibit an excellent wording clarity, and the 20% of the judges state that 54 items exhibit an "excellent" wording clarity and 3 items exhibit a "good" wording quality. These three items (7, 15, and 29) are presented in the following table (Table 20).

Table 20. Items reported with a good wording clarity by 20% of the judges

JUDGE PANEL'S ASSESSMENT		
Items	**Judgment on wording clarity**	**% of Judges**
• Para aprender inglés se necesita de interés/actitud para lograrlo • Para aprender inglés es necesario contar con diversos recursos o materiales de clase (libros, Cds, ayudas audiovisuales,etc.) • En clase se debería enfatizar más en el desarrollo de la habilidad de habla y escucha	Good	20% of the judges

These results evidence that the developed instrument (COBALTALI) exhibits adequate content validity evidence, not only in its items but also in its general survey format, indicating that it has an appropriate sample of items for the construct being measured (beliefs about English language learning and teaching), and that the instrument is ready to measure what it aims to measure. Furthermore, it is recalled that content validity inferences about a measuring instrument emerge from its process of construction. From these results it can be inferred that the COBALTALI will drive to valid interpretations of the scores obtained through its administration.

With regard to the first question (Does the target instrument –COBALTALI- show evidence of validity?) the evidence gathered throughout the addressed stages so far drive to answer that the COBALTALI exhibits desirable or adequate content validity evidence. This is a satisfactory answer because content validity is what scale (or measuring instrument) developers expect their instruments to exhibit when seeking for valid interpretations at the time of administering them.

Once this refinement stage, along with the cumulative evidence on content validity obtained in the previous stages, proved that the COBALTALI exhibits content validity characteristics, it is time to move towardss the next stage, intended to examine the dimensions or subscales of language learning beliefs that the 57 items chosen to comprise the COBALTALI deal with, which concerns the second research question of the study (What dimensions of language learning beliefs, from a qualitative approach, does the instrument –COBALTALI – focus on?). The next section is dedicated to address such results.

5.1.8. Results of the instrument dimensionality stage

This section is dedicated to report the results of the Instrument Dimensionality Stage. This set of results aim at answering the second research question of

this study (What dimensions of language learning beliefs, from a qualitative approach, does the instrument – COBALTALI – focus on?). In advance of the reports concerning this stage, a brief overview of some contextual details of this moment of the study will be addressed.

The purpose of this stage was to identify the latent domains or dimensions that concern the remaining 57 items comprising the COBALTALI. In other words, this stage is dedicated to determine what facets or spectrums of language learning beliefs the 57 items chosen to comprise the COBALTALI address. It is pertinent to recall, as it is pointed out in chapter 2, that language learning beliefs is considered as a multi-dimensional construct. Thus, given the demonstrated multidimensionality of the language learning belief construct, it was decided to examine what dimensions concern the belief-items comprising COBALTALI, through content expert judgment.

Before proceeding further, it is worthwhile to point out that when an instrument is developed to measure a multidimensional construct, as it is the case of this study, whose target construct language is learning beliefs, psychometricians, scholars and researchers strongly recommend that the test developer provide evidence of the latent dimensions or subscales related to that core construct. It is highlighted that dimensions or subscales are “hypothesized to be specific manifestations of a more general construct” (Clark & Watson, 1995, p. 2). A reason to recommend the identification of the subscales or dimensions of a

multidimensional construct is that it maximizes validity of a measuring instrument. Along with this, it is proper to recall that scale or measuring instrument developers often draw on either expert judgment or factor analysis (or both) to determine instrument dimensionality. In factor analysis such subscales are known as factors. In this study these two procedures are performed, and the results of COBALTALI instrument dimensionality through factor analysis, as it was previously pointed out, are reported further on in Section C.

Before focusing on the results it is pertinent to provide some procedural details concerning how the subscales or dimensions of the COBALTALI were identified. To begin with, for this purpose a survey designed by the researcher (see Appendix D) under a Substantive Agreement Index model (SAI), was administered to five expert panelists for them to determine the item dimensionality of the COBALTALI. In words of Hinkin and Tracey (1999), the SAI "reflects the proportion of respondents who assign an item to its intended construct" (Hinkin & Tracey, 1999, p. 176).

As a preceding step to employ the SAI, the researcher reviewed both the retained 57 items to comprise the instrument and the literature on language learning beliefs in order to identify possible dimensions (also referred as domains or subscales in this study) which the abovementioned items could assess. Through this review, the researcher identified six domains or subscales of language learning beliefs to which the 57 items comprising the

COBALTALI might deal with: Learning Context, Teacher's Role/ Profile, Motivation and Expectations, Learning Strategies and Activities, Teaching Methods/Approaches, and Learning Aptitude and Difficulty. After these six latent dimensions were identified, a five- expert panel, whose participation only took place in this stage, was asked either to assign each item to one of the six domains posed by the researcher (SAI model) or suggest a new domain if it was pertinent. This expert judgment was issued through a survey (see Appendix D) in which the definitions of the six posed domains were presented to help the panelists do their work. It should be noted that although such definitions emerged from the literature reviewed, they were worded by the researcher. The team of experts for this task consisted of five professionals holding postgraduate studies, whose areas of interest and expertise included applied linguistics, English language education and language research (more details about these participants can be found in chapter 4). It is important to highlight that the criterion assumed in this SAI is that (at least) three out of the five expert panelists agree on their judgment. In other words, an item is regarded as pertaining to a dimension if and only if three of the five experts comprising the expert panel of the SAI (the sixty percent of the panelists) conclude that such item corresponds to that dimension. The decision of implementing the abovementioned SAI criterion (a minimum of 60% of the judges) as the minimum acceptable agreement index for the SAI results in this study was made by the researcher in view of the lack of consensus in literature on criteria for this issue, as noted by Hinkin (1995).

In regards to the results of this stage of the study, the experts' judgment revealed that 3 items pertain specifically to the Learning Context dimension; 6 items to Teacher's and Student's Role/Profile dimension; 6 items to the Motivation and Expectations dimension; 15 items to the Learning Strategies and Activities dimension; 18 items to the Teaching Methods/Approaches dimension; and 5 items to the Learning Aptitude and Difficulty dimension. This expert judgment also revealed that four items did not fix in any of the posed domains: items 15, 19, 36, and 42. It should be noted that although the expert panel was asked to suggest a new domain in case any of the items did not correspond to the posed ones they did not suggest any new dimension for these four unclassified items. These results are shown in Table 21.

Table 21. Item-domain Assignment in the Opinion of Experts

Domains	Items	Items unclassified
Learning context	1, 8, 46	15, 19, 36, 42
Teacher's role/ profile	21, 33, 35, 49, 54, 57	
Motivation and expectations	7, 16, 25, 26, 38, 52	
Learning strategies and activities	2, 3, 9, 10, 18, 20, 24, 27, 28, 34, 37, 44, 50, 51, 56	
Teaching methods/approaches	4, 5, 6, 11, 12, 13, 14, 17, 22, 23, 29, 30, 39, 40, 41, 47, 48, 55	
Learning aptitude and difficulty	31, 32, 43, 45, 53	

Importantly, it should be noted that the results presented in the table above (Table 21) was not a consensual conclusion among all the five judges, but a

judgment made by at least three members (60%) of the expert panel. In addition, it is important to underline that the results of this index are not taken as criteria to exclude an item from the COBALTALI. Thereby, the four items (15, 19, 36, and 42) that were unclassified as corresponding to one of the six exhibited dimensions are still taken on as pertaining to the COBALTALI. For more clarity, the results of the SAI are only taken into consideration to define the latent subscales of language learning beliefs to which each one of the 57 items comprising the COBALTALI corresponds to, not to discard an item of the instrument.

As noted earlier, with this set of results the second research question of the study is answered (What dimensions of language learning beliefs, from a qualitative approach, does the instrument – COBALTALI – focus on?). Thereby, with the exception of the items 15, 19, 36, and 42, the items comprising the COBALTALI deal with six subscales or dimensions of beliefs about English language learning and teaching: Learning Context, Teacher's Role/ Profile, Motivation and Expectations, Learning Strategies and Activities, Teaching Methods/Approaches, and Learning Aptitude and Difficulty.

Having obtained the answer to the second research question of this study, in which the dimensionality of the COBALTALI was identified through expert judgment, it is time to focus on the results pertaining to whether the

COBALTALI shows evidence of reliability. For the sake of clarity, this new set of results corresponds to the third question and is presented after the Instrument Dimensionality Stage because the evidence of reliability is based on such dimensions (or subscales). More details about what this new set of results has to do with are shown in the following section.

5.1.9. Results of the reliability analysis of the COBALTALI for the six scales that emerged a priori

In the results presented above, it was evidenced that the target instrument (COBALTALI) showed evidence of construct validity. Now, this section is dedicated to examine whether the COBALTALI presents evidence of reliability. For the sake of clarity, it is recalled that validity, which refers to how well a test measures what it purports to measure, and reliability, which concerns the degree to which a measuring instrument (including surveys, tests, questionnaires or inventories) produces stable and consistent results, are fundamental psychometric properties that scale developers expect their instruments to show.

The results presented on the COBALTALI reliability have to do with the aspects of internal consistency and stability. As pointed out in chapter 3, internal consistency reliability refers to how well the items on the survey, test, questionnaire or inventory that are proposed to measure the same construct or

idea produce similar or consistent results. In turn, stability reliability refers to the consistency of respondents' scores or responses when a test or questionnaire is administered to the same respondents on two different occasions. The results concerning these types of reliability on the COBALTALI are reported in the following sections.

5.1.9.1. Results of the internal consistency reliability estimate to the dimensions extracted through expert judgment

The results presented in this instance of the study pertain to the findings of a reliability analysis of the COBALTALI, regarding the aspect of internal consistency. As noted in the chapter 3, reliability, as an important standard (or quality criterion) of quantitative research in measuring instrument development, refers to the degree to which a measurement instrument produces stable and consistent results. The internal consistency reliability is used to assess the consistency of results across items (that probe the same construct) within a test.

Before focusing on the results, it is pertinent to present some contextual details about how internal consistency reliability was estimated on the COBALTALI. To begin with, the data emerged from the administration of the COBALTALI to 563 university students from six universities located in Bogotá. These

participants, as well as the data, are the same involved in the Participants' Belief Description Stage (a stage that will be addressed further on). This group of students (275 males and 288 females) was enrolled in different undergraduate programs as well in compulsory English in those universities (more details about this sample can be found in chapter 4). The COBALTALI was administered to the 563 university students in their study places (the universities) in a paper format. The collected data, that is the beliefs reported by the sample, was subjected to Cronbach's Alpha Analysis; the most widely used statistical measure of reliability. For more clarity, six aspects about Cronbach's alpha, which is a coefficient of reliability or consistency, are highlighted. First, alpha value, often denoted by the symbol (α) or the Greek letter ρ, should be calculated for each of the dimensions or subscales rather than for the entire test or scale. As for this study, the dimensions or subscales that emerged a priori, through expert judgment, were six: Learning Strategies and Activities, Teaching Methods/Approaches, Learning Aptitude and Difficulty, Motivation and Expectations, Teacher's Role/Profile, and Learning Context. Second, Cronbach's alpha value is expressed as a number between 0 and 1. Third, there are different guidelines about the acceptable values of alpha, ranging from 0.70 to 0.90 and a maximum alpha value of 0.90 is usually recommended. Fourth, a Cronbach's alpha value of .70 or higher is considered "acceptable" in most social science research contexts (Nunnaly, 1978). Fifth, if the items comprising a dimension in a test or questionnaire are correlated to each other (inside the dimension), the value of alpha is increased. Sixth, a high value of alpha (> 0.90) may suggest redundancies and indicate that the

inventory or test length should be shortened. When a low alpha value is reported due to poor correlation between items then each item comprising the domain or subscale should be revised and if necessary discarded.

Keeping in mind the abovementioned contextual details of this Internal Consistency Reliability analysis, it is proceeded to present the results. The Cronbach's alpha index analysis, performed to the six dimensions or subscales that emerged a priori (through expert judgment), showed "acceptable" evidence of internal consistency reliability in two out of the six dimensions: Learning Strategies and Activities (with Cronbach's alpha values of 0,711) and Teaching Methods/Approaches (with Cronbach's alpha values of 0,752). The remaining dimensions (Learning Aptitude and Difficulty, Motivation and Expectations, Teacher's Role/Profile, and Learning Context) showed "poor" evidence of internal consistency reliability (alpha values lower than .70.) These results are presented in Table 22.

Table 22. Cronbach's alpha for the six scales that emerged a priori

Scale	Items comprising the scales	Cronbach's alpha (α)
Learning Strategies and Activities (15 items)	2, 3, 9, 10, 18, 20, 24, 27, 28, 34, 37, 44, 50, 51, 56	0,711
Teaching Methods/Approaches (18 items)	4, 5, 6, 11, 12, 13, 14, 17, 22, 23, 29, 30, 39, 40, 41, 47, 48, 55	0,752
Learning Aptitude and Difficulty (5 items)	31, 32, 43, 45, 53	0,682
Motivation and Expectations (6 items)	7, 16, 25, 26, 38, 52	0,406

Teacher's Role/ Profile (6 items)	21, 33, 35, 49, 54, 57	0,474
Learning Context (3 items)	1, 8, 46	0,280

The results presented in Table 22 concerning the Learning Strategies and Activities dimension (with Cronbach's alpha values of 0,711) indicate that each of the 15 items that comprise this subscale of language learning beliefs (items 2, 3, 9, 10, 18, 20, 24, 27, 28, 34, 37, 44, 50, 51, and 56) correlates with each of the other items of this dimension. In other words, these results indicate that the items comprising the scale (also referred to as dimension, domain or construct in this study) "Learning strategies and activities" do measure such construct. In this respect, it is recalled that when Cronbach's alpha value is .70 or higher (≥. 70) internal consistency reliability is often considered "acceptable" in social science research (Nunnaly, 1978). Likewise, the results related to the Teaching methods/approaches dimension (with Cronbach's alpha values of 0,752) also indicate that each of the 18 items that comprise this subscale of language learning beliefs (items 4, 5, 6, 11, 12, 13, 14, 17, 22, 23, 29, 30, 39, 40, 41, 47, 48, and 55) correlates with each of the other items of this dimension. Conversely, the results that correspond to the other four dimensions (Learning Aptitude and Difficulty, Motivation and Expectations, Teacher's Role/Profile, and Learning Context) indicate that there is a lack of internal consistency reliability (or interrelatedness) inside such domains. In other words, these results indicate that the item-correlation of items responses

obtained in each of these four dimensions is not appropriate. A possible explanation to obtain low alpha values in these four dimensions is that the number of items in these dimensions is relatively small (five items in the dimension Learning Aptitude and Difficulty and in Learning Context; six items in Teacher's Role/ Profile and six items in Motivation and Expectations), whereas the number of items in the other two domains are relatively big (15 and 18 items). In this respect it is pertinent to point out that Cronbach's alpha increases as the number of items in the dimension (subscale) increases. Hence, given that increasing the number of items is a way to push alpha value to an acceptable level (≥. 70), it is suggested to generate more items to comprise such dimensions (Learning Aptitude and Difficulty, Motivation and Expectations, Teacher's Role/ Profile, and Learning Context).Since the purpose of this study was to design the COBALTALI only with items reported by the participants in the study (university language learners) the researcher restrained from adding new items to the aforementioned dimensions.

Once the aspect of internal consistency reliability was estimated on the six dimensions or subscales that emerged a priori (through expert judgment) it is pertinent to focus on the results of the other aspect of reliability: stability reliability. Such results are presented in the next section.

5.1.9.2. Results of the stability reliability estimate to the dimensions extracted through expert judgment

The preceding section of this study was devoted to present the results of a reliability analysis regarding the aspect of internal consistency. Those results serve to accumulate evidence of the psychometric properties of the measuring instrument under development (COBALTALI). Hence, such results aim at answering the fourth research question posed in this study (What evidence of reliability does the target instrument – COBALTALI – show according to the dimensions of language learning beliefs identified through expert judgment?). Subsequently, this section of the study is conceived to present the results concerning a reliability analysis regarding the aspect of stability. It also addresses the fourth research question of the study. For the sake of clarity, it is pertinent to recall, as can be seen in chapter 3, that stability in a measuring instrument deals with the degree to which an instrument yields stable scores over time.

Before focusing on the concrete results of the reliability analysis regarding the aspect of stability, it may be worth presenting some contextual details of this analysis. To begin with, the final version of the COBALTALI (see Appendix G), which had been systematically refined through Phase I and Phase II of this study, was submitted to a test-retest process, in order to evaluate whether this instrument yielded stable scores over time. As Kimberlin and Winterstein

(2008) point out “Stability of measurement, or test–retest reliability, is determined by administering a test at two different points in time to the same individuals and determining the correlation or strength of association of the two sets of scores” (p. 2277).

The sample consisted of 29 undergraduate students, who voluntarily decided to participate in this study. Consistent with the literature on measuring instrument assessment, the same version of the instrument was administered (the last version of the COBALTALI) to this sample twice, in a lapse of four days between each administration, under similar conditions. This interval administration was assumed by the researcher as a “confident interval” given that literature on language learning beliefs (LLB) suggests that this underlying construct does not easily change over a short time. Subsequently, the two sets of data collected (in time 1 and in time 2) were subjected to a statistical analysis: Spearman’s correlation (coefficient) analysis. Spearman’s correlation coefficient is defined by researchers and statisticians as a statistical measure of the strength of a monotonic relationship between paired data. A monotonic function is one that either never increases or never decreases as its independent variable increases. It was drawn on a Spearman's correlation analysis because it is widely used by researchers and statisticians when attempting to determine whether a measuring instrument is reliable over time (stability test-retest correlations coefficients), with data that is not normally distributed.

As for the results of this analysis, the performance of the Spearman's correlation analysis revealed that the six scales that emerged a priori or rather through expert judgment (Learning Strategies and Activities, Teaching Methods/Approaches, Learning Aptitude and Difficulty, Motivation and Expectations, Teacher's Role/Profile, and Learning Context) demonstrated evidence of stability reliability (Spearman $p< 0,01$). The Test-retest correlation coefficients were either a "strong" or a "very strong" in the six domains identified in the item dimensionality stage carried out through expert judgment. The data obtained in this analysis are presented in Table 23.

Table 23. Correlation coefficient test-retest (Spearman ρ)

Scale	*ρ* of Spearman
Learning strategies and activities	0,749**
Teaching methods/approaches	0,800**
Learning aptitude and difficulty	0,917**
Motivation and expectations	0,683**
Teacher's and student's role/ profile	0,785**
Learning context	0,742**

** $p< 0,01$

To understand the strength of the correlations presented in Table 23, it may be useful to keep in mind the following guide, presented in Table 24, often used by researchers and statisticians to verbally describe the results.

Table 24. Guide to understand the correlation values

Strength of correlations through Spearman's correlation analysis
• .00-.19 “very weak” • .20-.39 “weak” • .40-.59 “moderate” • .60-.79 “strong” • .80-1.0 “very strong”

Based on the guide presented above and the results revealed in Table 23, it is evident that the Test-retest correlation coefficients were either a “strong” or a “very strong” for all the six scales which emerged a priori. That is, there appears to be a strong positive correlation between the variables under study. In simple words, these results indicate that the set of respondents’ answers about the items that comprise each scale or domain obtained in “time 1”, in which the COBALTALI was administered, were consistent with those reported in “time 2”. Hence, it indicates that the COBALTALI yielded stable (not necessary valid) results over time. These results will be discussed in the next chapter.

Overall, the results related to the reliability analysis of the COBALTALI for the six scales that emerged a priori revealed that this instrument shows adequate evidence of internal consistency reliability in only two of its six dimensions or subscales of language learning beliefs. These dimensions are Learning

Strategies and Activities and Teaching Methods/Approaches. These results suggest further endeavors to enhance the internal consistency reliability values in the other four dimensions, which might be attained by increasing the number of items in each of those dimensions. In turn, the results of the stability reliability analysis on the six scales that emerged a priori of the COBALTALI revealed that this inventory yields stable results over time, which is a satisfactory finding because measuring instruments are expected to produce consistent scores over time.

SECTION- A SUMMARY

This first section of the chapter has addressed the results related to the first objective of the study: the development of a valid and reliable inventory (also referred to as questionnaire in this study) for the examination of beliefs Colombian university students hold about English language teaching and learning. Fundamentally, it addressed the first, second and fourth research questions of the study, which are related to the evidence of construct validity and reliability that the COBALTALI holds and the dimensions of belief about language learning that the instrument COBALTALI focuses on.

This section started by reviewing the main objectives and the research questions that concern this initial block of results and then moved to present the sets of results related to the validity evidence of the instrument under

development (COBALTALI), which corresponded to the findings reported in the first eight methodological stages of the study. Throughout these stages, in which the set of items for the COBALTALI, and the whole survey, were subjected to rigorous refinement processes, it was demonstrated that the new COBALTALI exhibits evidence of construct validity, specifically of content validity. Essentially, it was evidenced that the 57 retained items to comprise the COBALTALI present four characteristics: 1) they correspond to real beliefs Colombian university students hold about English language teaching and learning; 2) they exhibit a high degree of representativeness to the construct under investigation (language learning beliefs) and none of them exhibit cultural sensitivity; 3) they show adequate technical qualities (clarity and readability properties) to measure what it purports to measure; and 4) they address six dimensions or subscales of language learning beliefs, namely Learning Context, Teacher's Role/ Profile, Motivation and Expectations, Learning Strategies and Activities, Teaching Methods/Approaches, and Learning Aptitude and Difficulty. Likewise, it was shown through expert judgment, that not only the items that comprise the COBALTALI exhibit satisfactory content validity properties but also the other parts that comprise the instrument (adequate degree of clarity and in the wording of the introduction paragraph, the personal information section, and the instruction section). Overall, the abovementioned evidence of the COBALTALI indicates that this language belief instrument holds appropriate or sound construct validity properties, which is a satisfactory answer for the first research question of the study because validity, as stated earlier in chapter 3, is a psychometric

property (along with reliability) measuring instrument developers expect their instruments to exhibit. Additionally, the methodological rigor with which the COBALTALI has been developed so far drives to gain confidence about valid interpretations when administering it further on.

In this part of the study results it was then focused on reporting the results pertaining to the dimensionality identification of the COBALTALI from a qualitative framework (expert judgment), which concerned the second research question. Such results revealed, through expert judgment that, with the exception of the items 15, 19, 36, and 42, the items comprising the COBALTALI deal with six subscales or dimensions of beliefs about English language learning and teaching (Learning Context, Teacher's Role/Profile, Motivation and Expectations, Learning Strategies and Activities, Teaching Methods/Approaches, and Learning Aptitude and Difficulty).

This chapter section closed by presenting the results related to the reliability evidence of the COBALTALI, specifically on internal consistency and stability reliability of such instrument, according to the six dimensions or subscales of language learning beliefs identified through expert judgment, which concern the fourth research question of the study. As for internal consistency, the results revealed that the COBALTALI shows adequate evidence of internal consistency reliability in only two of its six dimensions or subscales of language learning beliefs. These dimensions are Learning Strategies and Activities and Teaching Methods/Approaches. A possible explanation why the other four

dimensions did not exhibit adequate evidence of internal consistency reliability was the reduced number of items comprising such dimensions. These results will be discussed in the following chapter. As for the stability reliability analysis on the six scales that emerged a priori (through expert judgment) the results revealed that the inventory (COBALTALI) yields stable results over time, being a satisfactory finding because inventories of this kind are expected to yield consistent scores over time.

After this report of the results on the validity and reliability properties of the COBALTALI and the results of the dimensionality analysis, based on the dimensions identified through a qualitative approach, it is time to focus on the second part of the result chapter (Part B: Results of the Participants' Belief Description Stage). In that part (Part B) the results corresponding to the Participants' Belief Description Stage are addressed, which are used to provide answers to following question: What beliefs do university students who are learning English as a foreign language in Colombia, hold about English language teaching and learning?

5.2. Section B: Results of the Participants' Belief Description Stage

The previous section of the chapter centered on the results corresponding to the first objective of the study: the development of an inventory (COBALTALI), for the examination of beliefs Colombian university students hold about English

language teaching and learning, with adequate psychometric properties. In doing so, three research questions of the study were addressed. It may be pertinent to clarify that there are two more research questions aiming at the first objective of the study, which will be addressed below, in Sections C and D. This second section is devoted to address the results related to the second macro objective of the study – the description of the beliefs Colombian university students of English hold about English language teaching and learning – which is pursued through the sixth research question of the study: What beliefs do university students who are learning English as a foreign language in Colombia hold about English language teaching and learning?

This second section of the chapter starts by recalling the research question to be addressed and by describing the participants involved and the data collected. It then closes by reporting the results related to the beliefs a substantial number of Colombian university English students hold about English language learning and teaching.

5.2.1. Review of the research question, participants and the data collected

This part of the study addresses the sixth research question of the study: What beliefs do university students who are learning English as a foreign language in Colombia hold about English language teaching and learning?

As for the participants in this stage, they were 563 university students from six universities located in Bogotá. This sample was comprised by students who voluntarily decided to take part in this study. They were enrolled in different undergraduate programs in those universities and were taking English there as a compulsory course. Of the 563 students, 275 were males (48,8%) and 288 were females (51,2%), with a mean age of 20.9 years. Their English levels ranged from A1, A2, B1, B2, C1, and C2 (according to the European Framework of Reference), as reported by the English Directors and Coordinators of the language departments in those institutions (see chapter 3 for more details about this sample).

In regards to the instrument used in this stage, as noted earlier, it was the Colombian Beliefs about Language Learning and Teaching Inventory or COBALTALI, after having been subjected to different refinement procedures. This COBALTALI consisted of 57 items, concerning beliefs about English language learning and teaching (see the two previous chapters for more details about this instrument). The COBALTALI was administered to the intended sample (563 participating university students) in their study places (the universities).

With regards to the data concerning this stage, it was collected to a) describe the beliefs Colombian university students of English, who are pursuing different university programs, hold about English language teaching and

learning; b) determine whether the gender, English level, socioeconomic stratum, and age variables affect learners' beliefs about English language teaching and learning; c) examine the COBALTALI dimensionality through a quantitative approach (factor analysis), d) examine the reliability properties of the COBALTALI through a quantitative approach (factor analysis).

After this review about the research question, participants, instrument and data collected, it is the opportunity to focus on the results of this Participants' Belief Description Stage. To begin with, a breakdown of the beliefs reported in this stage will be presented, in terms of percentages. It is then proceeded to present the results of data analyses.

5.2.2. Results on the description of students' beliefs

The results presented in this instance of the dissertation pertain to the beliefs about English language teaching and learning held by 563 university students and reported in the field administration of the Colombian Beliefs about Language Learning and Teaching Inventory – COBALTALI –. The students' responses reported in this stage are presented in Table 25, in terms of percentages of agreement with the beliefs of the COBALTALI, according to a 5-point Likert-type scale. It should be noted that the columns of such table with the numbers 1, 2, 3, 4, and 5 on the top correspond to the degree of agreement (a 5-point Likert-type scale) with the belief-items under

examination, in which the number 1 stands for “Strongly agree”, the 2 stands for “Agree”, the 3 for “Neither agree nor disagree”, the 4 for “Disagree” and the 5 for “Strongly disagree”.

Table 25. Breakdown of Students’ (n: 563) response rates in percentages[8]

#	ITEMS	RESPONSES %						
		1	2	3	4	5	Total %	n.
1	Para aprender inglés es necesario hacerlo en un país de habla inglesa	12,3	23,6	30,9	22,4	10,5	99,7	563
2	Escuchar música en inglés favorece el aprendizaje de la lengua inglesa	42,1	49,0	6,9	1,2	,4	99,6	563
3	En clase de inglés se debe enfatizar en el aprendizaje de vocabulario	46,0	43,7	7,1	2,3	,2	99,3	563
4	Las actividades audiovisuales son importantes para el aprendizaje del inglés	43,7	43,6	11,2	,8	,0	99,3	563
5	La enseñanza del inglés debe ser didáctica	58,3	32,5	7,6	,4	,5	99,3	563
6	Para el aprendizaje del inglés es importante la enseñanza explícita de la gramática	34,5	48,3	13,0	2,5	,7	99	563
7	Para aprender inglés se necesita de interés/actitud para lograrlo	79,6	16,0	2,1	,2	,7	99,3	563
8	Aprender inglés es más fácil si se hace desde niño	55,1	26,1	13,9	3,0	1,2	99,3	563
9	Para aprender inglés es necesario dedicarle tiempo todos, o casi todos, los días	45,7	41,2	9,8	1,6	1,2	99,5	563
10	Para aprender inglés es necesario practicar la habilidad de escucha	60,6	35,3	2,7	,5	,4	99,5	563
11	Las clases de inglés deben basarse en interacciones habladas o diálogos	40,3	42,8	14,5	,9	,5	99	563
12	En clase de inglés se debe hablar un 100% en inglés	25,6	26,9	29,0	15,8	1,6	99,2	563
13	En clase de inglés se puede recurrir al español	13,3	48,7	25,8	7,6	4,3	99,7	563
14	El profesor de inglés debe enfatizar mucho en la pronunciación	55,6	38,5	4,8	,4	,2	99,5	563
15	Para aprender inglés es necesario contar con diversos recursos o materiales de clase (libros, Cds, ayudas audiovisuales, ayudas tecnológicas, etc.)	54,0	35,7	7,6	1,6	,5	99,4	563
16	Es importante aprender inglés	82,6	14,4	2,1	,2	,5	99,8	563
17	La enseñanza del inglés debe ser lúdica	51,9	39,1	7,1	,5	,5	99,1	563
18	Para aprender inglés es importante hacer ejercicios de lecturas en inglés	46,9	42,5	8,7	,7	,5	99,3	563
19	Para aprender inglés es necesario saber acerca de los países de habla inglesa	14,0	22,6	43,2	16,3	3,7	99,8	563
20	Para aprender inglés es necesario interactuar con personas cuya lengua nativa es el inglés	30,7	35,8	24,2	6,2	2,1	99	563
21	Los profesores de inglés deben ser de un país de habla inglesa	8,5	9,4	37,8	31,6	12,6	99,9	563
22	Cuanto más personalizada sea la clase de inglés, más se aprende	40,5	38,5	16,9	2,7	1,2	99,8	563
23	La enseñanza del inglés debería estar centrada en situaciones cotidianas	27,9	45,1	24,5	2,0	,4	99,9	563
24	Para aprender inglés es importante realizar trabajos extra clase	23,6	44,2	24,9	5,3	,7	99,3	563
25	Es mejor el inglés británico que el americano	16,7	16,3	56,8	5,7	3,7	99,2	563
26	Es más importante la pronunciación que el acento	22,9	36,7	31,8	7,1	1,2	99,7	563
27	Realizar ejercicios de traducción favorece el aprendizaje del inglés	23,8	49,0	19,0	5,9	1,6	99,3	563
28	En clase de inglés es importante realizar ejercicios de escritura	38,4	53,8	5,3	1,1	,4	99	563
29	Se debe enseñar tanto inglés americano como británico	37,7	33,4	24,0	3,7	,9	99,7	563

[8] Table 25 is translated into English in Appendix K

30	En clase se debería enfatizar más en el desarrollo de la habilidad de habla y escucha	45,5	41,7	9,9	1,6	,5	99,2	563
31	Es muy difícil aprender inglés en un país de habla hispana	14,2	23,6	33,6	21,7	6,6	99,7	563
32	El inglés es un idioma difícil de aprender	10,8	23,6	27,5	24,2	13,3	99,4	563
33	Para aprender inglés es importante una buena interrelación estudiante – docente	39,1	44,2	12,6	2,8	,4	99,1	563
34	Para aprender inglés es necesario pensar en inglés	41,2	34,8	17,6	3,7	1,8	99,1	563
35	Es importante que el docente de inglés haya estado en un país de habla inglesa	17,6	22,0	38,4	16,9	4,8	99,7	563
36	La enseñanza del inglés se debería integrar en la enseñanza de otras asignaturas	38,7	38,7	16,3	4,3	1,4	99,4	563
37	Los cursos de inglés por internet son recursos valiosos para apoyar el aprendizaje del inglés	33,7	44,4	16,7	2,7	2,0	99,5	563
38	El profesor de inglés debe motivar a sus estudiantes a aprender ese idioma	54,4	37,8	5,7	1,1	,2	99,2	563
39	La enseñanza del inglés debe ser más práctica que teórica	53,6	31,8	13,0	1,1	,5	100	563
40	Se debería procurar en que el alumno desarrolle fluidez en el idioma inglés	56,0	39,1	4,3		,2	99,6	563
41	Se deben innovar las metodologías para la enseñanza del inglés	54,4	36,9	7,3	,7	,2	99,5	563
42	Para aprender inglés se necesita de un tutor o profesor	37,5	33,4	23,8	4,8	,4	99,9	563
43	Las personas mayores de edad presentan mayor dificultad para aprender inglés	20,8	29,8	34,1	11,0	4,1	99,8	563
44	Si no se practica el inglés se olvida	40,9	42,5	11,9	3,6	1,1	100	563
45	La pronunciación del inglés es difícil de aprender	11,4	27,9	35,5	22,4	2,5	99,7	563
46	Para aprender inglés es necesario estudiarlo de manera presencial	32,9	29,3	25,9	9,9	,9	99,3	563
47	En clase de inglés se debería hacer más énfasis en la habilidad de habla	36,6	46,9	14,4	1,4	,4	99,7	563
48	En clase de inglés las actividades orales en grupo facilitan el aprendizaje	41,0	44,9	11,4	1,6	,4	99,3	563
49	La exigencia por parte del docente al estudiante es importante para el aprendizaje del inglés	44,2	45,3	8,7	1,6	,2	100	563
50	Las actividades competitivas en clase estimulan el interés del estudiante por el aprendizaje del inglés	39,1	46,7	11,7	1,8	,5	99,8	563
51	Los ejercicios de repetición favorecen el aprendizaje del inglés	39,8	42,8	13,7	2,1	1,1	99,5	563
52	Cuando se quiere aprender inglés se puede	69,6	25,9	2,8	,4	,5	99,2	563
53	El aprendizaje del inglés se le facilita más a unas personas que a otras	45,4	37,4	11,9	3,6	,72	99,02	563
54	Un profesor de inglés debe corregir al estudiante en el momento que sea necesario	68,0	27,7	3,0	,4	,2	99,3	563
55	En clase de inglés es más importante hacer énfasis en la habilidad de habla que en la gramática	23,1	27,4	40,0	7,8	1,2	99,5	563
56	Cantar en inglés favorece el aprendizaje del inglés	46,4	38,9	13,1	1,1	,5	100	563
57	Es importante que el docente enseñe al estudiante cómo aprender	52,0	35,9	9,9	1,4	,4	99,6	563

The results reported in Table 25 drive to answer the sixth research question posed to guide this study: What beliefs do university students, who are learning English in Colombia as foreign language, hold about English language teaching and learning? In order to facilitate the understanding of these results two tables are designed. The data in Table 26 shows the results when learners' "Strongly agree" and "Agree" responses are taken as a single

response and when learners' "Disagree" and "Strongly disagree" are seen as a single response. Additionally, Table 27 shows the items to which learners reported they hold a neutral position (Neither agree nor disagree response).

Table 26. Breakdown of Students' (n: 563) combined response rates in percentages[9]

#	ITEMS	RESPONSES %		n.
		1	2	
1	Para aprender inglés es necesario hacerlo en un país de habla inglesa	35,9	32,9	563
2	Escuchar música en inglés favorece el aprendizaje de la lengua inglesa	91,1	1,6	563
3	En clase de inglés se debe enfatizar en el aprendizaje de vocabulario	89,7	2,5	563
4	Las actividades audiovisuales son importantes para el aprendizaje del inglés	86,5	0,7	563
5	La enseñanza del inglés debe ser didáctica	90,8	0,9	563
6	Para el aprendizaje del inglés es importante la enseñanza explícita de la gramática	82,8	3,2	563
7	Para aprender inglés se necesita de interés/actitud para lograrlo	95,6	0,9	563
8	Aprender inglés es más fácil si se hace desde niño	81,2	4,2	563
9	Para aprender inglés es necesario dedicarle tiempo todos, o casi todos, los días	86,3	2,8	563
10	Para aprender inglés es necesario practicar la habilidad de escucha	95,9	0,9	563
11	Las clases de inglés deben basarse en interacciones habladas o diálogos	83,1	1,4	563
12	En clase de inglés se debe hablar un 100% en inglés	52,2	17,4	563
13	En clase de inglés se puede recurrir al español	62	11,9	563
14	El profesor de inglés debe enfatizar mucho en la pronunciación	94,1	0,6	563
15	Para aprender inglés es necesario contar con diversos recursos o materiales de clase (libros, Cds, ayudas audiovisuales, ayudas tecnológicas, etc.)	89,7	2,1	563
16	Es importante aprender inglés	97	0,7	563
17	La enseñanza del inglés debe ser lúdica	91	1	563
18	Para aprender inglés es importante hacer ejercicios de lecturas en inglés	89	1,2	563
19	Para aprender inglés es necesario saber acerca de los países de habla inglesa	36,6	20	563
20	Para aprender inglés es necesario interactuar con personas cuya lengua nativa es el inglés	66	8,3	563
21	Los profesores de inglés deben ser de un país de habla inglesa	17,9	44,2	563
22	Cuanto más personalizada sea la clase de inglés, más se aprende	79	3,9	563
23	La enseñanza del inglés debería estar centrada en situaciones cotidianas	73	2,4	563
24	Para aprender inglés es importante realizar trabajos extra clase	67,8	6	563
25	Es mejor el inglés británico que el americano	33	9,4	563
26	Es más importante la pronunciación que el acento	58,7	8,3	563
27	Realizar ejercicios de traducción favorece el aprendizaje del inglés	72,8	7,5	563
28	En clase de inglés es importante realizar ejercicios de escritura	92,2	1,5	563
29	Se debe enseñar tanto inglés americano como británico	71,1	4,6	563
30	En clase se debería enfatizar más en el desarrollo de la habilidad de habla y escucha	87,2	2,1	563

[9] Table 26 is translated into English in Appendix L

31	Es muy difícil aprender inglés en un país de habla hispana	37,8	28,3	563
32	El inglés es un idioma difícil de aprender	34,4	37,5	563
33	Para aprender inglés es importante una buena interrelación estudiante – docente	83,3	3,2	563
34	Para aprender inglés es necesario pensar en inglés	76	5,5	563
35	Es importante que el docente de inglés haya estado en un país de habla inglesa	39,6	21,7	563
36	La enseñanza del inglés se debería integrar en la enseñanza de otras asignaturas	77,4	5,7	563
37	Los cursos de inglés por internet son recursos valiosos para apoyar el aprendizaje del inglés	78,1	4,7	563
38	El profesor de inglés debe motivar a sus estudiantes a aprender ese idioma	92,2	1,3	563
39	La enseñanza del inglés debe ser más práctica que teórica	85,4	1,6	563
40	Se debería procurar en que el alumno desarrolle fluidez en el idioma inglés	95,1	0,2	563
41	Se deben innovar las metodologías para la enseñanza del inglés	91,3	0,9	563
42	Para aprender inglés se necesita de un tutor o profesor	70,9	5,2	563
43	Las personas mayores de edad presentan mayor dificultad para aprender inglés	50,6	15,1	563
44	Si no se practica el inglés se olvida	83,4	4,7	563
45	La pronunciación del inglés es difícil de aprender	39,3	24,9	563
46	Para aprender inglés es necesario estudiarlo de manera presencial	61,4	10,6	563
47	En clase de inglés se debería hacer más énfasis en la habilidad de habla	83,5	1,8	563
48	En clase de inglés las actividades orales en grupo facilitan el aprendizaje	85,9	2	563
49	La exigencia por parte del docente al estudiante es importante para el aprendizaje del inglés	89,5	1,8	563
50	Las actividades competitivas en clase estimulan el interés del estudiante por el aprendizaje del inglés	85,8	2,3	563
51	Los ejercicios de repetición favorecen el aprendizaje del inglés	82,6	3,2	563
52	Cuando se quiere aprender inglés se puede	95,5	0,9	563
53	El aprendizaje del inglés se le facilita más a unas personas que a otras	82,6	4,3	563
54	Un profesor de inglés debe corregir al estudiante en el momento que sea necesario	95,7	0,6	563
55	En clase de inglés es más importante hacer énfasis en la habilidad de habla que en la gramática	50,5	9	563
56	Cantar en inglés favorece el aprendizaje del inglés	85,3	1,6	563
57	Es importante que el docente enseñe al estudiante cómo aprender	87,9	1,8	563

As for the results presented in Table 26, it may be useful to keep in mind the combined scores (respondents' responses) pertaining to the "Strongly agree" response option and "Agree" response option are displayed in the column with the number 1; the combined scores corresponding to the "Disagree" response option and "Strongly disagree" response option are displayed in the column with the number 2. These results evidence that there were 13 items of the

COBALTALI (2, 5, 7, 10, 14, 16, 17, 28, 38, 40, 41, 52, and 54) to which at least 90 % of the participants either “Strongly agreed” or “Agreed”. Also, there were three items to which a considerable number of participants either “Strongly disagree” or “Disagree”: items 21 (44,2%), item 32 (37,5%) and item 1 (32,9%).

Now, we turn to the items with prominent percentages of respondents’ “Neither agree nor disagree” responses. The results revealed, as can be seen in Table 27, that only ten items presented outstanding percentages, that is percentages with the closest values to the central ratio (33,3%) of the three general response options - agree, disagree and neutral.

Table 27. Top ten items with “Neither agree nor disagree” response percentage[10]

#	ITEMS	RESPONSES %	n.
		Neither agree nor disagree response frequency	
25	Es mejor el inglés británico que el americano	**56,8**	563
19	Para aprender inglés es necesario saber acerca de los países de habla inglesa	**43,2**	563
55	En clase de inglés es más importante hacer énfasis en la habilidad de habla que en la gramática	**40,0**	563
35	Es importante que el docente de inglés haya estado en un país de habla inglesa	**38,4**	563
21	Los profesores de inglés deben ser de un país de habla inglesa	**37,8**	563
45	La pronunciación del inglés es difícil de aprender	**35,5**	563
43	Las personas mayores de edad presentan mayor dificultad para aprender inglés	**34,1**	563
31	Es muy difícil aprender inglés en un país de habla hispana	**33,6**	563
26	Es más importante la pronunciación que el acento	**31,8**	563
1	Para aprender inglés es necesario hacerlo en un país de habla inglesa	**30,9**	563

[10] Table 27 is tranlated into English in Appendix M

From Table 27 it is clear that there is a substantial number of respondents (at least 30,9%) who neither agree nor disagree with the items 25, 19, 55, 35, 21, 45, 43, 31, 26, and 1. In the following chapter these results are discussed.

SECTION- B SUMMARY

This section of the chapter was devoted to report the beliefs about English language teaching and learning held by 563 university students in the field administration of the Colombian Beliefs about Language Learning and Teaching Inventory – COBALTALI –. The students' responses were reported in terms of percentages based on a 5-point Likert-type scale: "Strongly agree", "Agree", "Neither agree nor disagree", "Disagree" and "Strongly disagree".

These results evidenced that there were 13 items shaping the COBALTALI to which at least 90% of the participants either "Strongly agree" or "Agree". Also, there were three items with prominent either "Strongly disagree" or "Disagree" response frequency. Likewise, these results revealed that there were at least 30,9% of the respondents who "neither agree nor disagree" with ten beliefs shaping the COBALTALI.

Overall, the results reported above have been addressed to answer the third research question of this study (What beliefs do university students who are learning English as a foreign language in Colombia, hold about English

language teaching and learning?). It is reminded that this chapter is simply devoted to report the results and the following chapter is devoted to discuss all the sets of results reported in this chapter.

The following part of this result chapter is dedicated to report, based on the previous description of the beliefs Colombian university students of English hold about English language teaching and learning, the results pertaining to the dimensionality of the COBALTALI from a quantitative approach (factor analysis). It is clarified that this set of results is presented before the sets of results related to the extent the gender, English level, socioeconomic stratum, and age variables affect learners' beliefs about English language teaching and learning because the analysis of such variables are based on the resulting factors extracted.

5.3. Section C: Results of the COBALTALI dimensionality through a quantitative approach

One of the objectives pursued in this study with the development of the COBALTALI was to demonstrate its construct validity, which concerns the first objective of the study. One way to show such validity is to provide evidence of the COBALTALI dimensionality or subtopics of language learning beliefs. It should be recalled that language learning beliefs, as it was pointed out in chapter 2, is considered as a multi-dimensional construct, that is, a domain or

general type of belief with many subcategories facets, spectrums or dimensions of language learning beliefs. In this sense, the results concerning the COBALTALI dimensionality are in essence evidence of its construct validity. This part of the chapter focuses on reporting the results that led to identify the dimensionality of the COBALTALI through a quantitative approach and deals with the third research question of the study: What dimensions of language learning beliefs, can be identified through factor analysis, in the beliefs about English language teaching and learning reported by Colombian university students?With the purpose of identifying the dimensions of this language belief instrument through a quantitative framework it was opted to perform factor analysis, which is one of the most popular and extensively used statistical methods in psychological and educational research (Bachman, 1990) to determine the dimensionality of a research instrument. It is recalled that "factor analysis is not a singular statistical method, but rather a group of statistical analyses that share similar methodology and functionality" (Beavers et al., 2013, p. 1).

The results reported in this part of the chapter deal with the following sets of factor analyses: 1) the set of results obtained by running Principal Axis Factoring (PAF), 2) the set of results that concerned an analysis of the proportion of variance (shared by each item with the factor), 3) the set of results related to an examination of sampling adequacy for the adopted factor solution through the Meyer-Olkin (KMO) measure of sampling adequacy, and the Bartlett's Test of Sphericity, 4) The set of results obtained with Principal

Axis Factor analysis with Promax rotation, in order to assess the underlying structure for the items comprising the resulting factor solution, 5) the set of results pertaining to the labeling process of the final extracted factors, and, finally, 6) the set of results of the analysis of correlations among empirical factors with the Pearson Correlation Coefficient.

The six sets of results mentioned above correspond to the two main sets of factor analysis techniques: Exploratory Factor Analysis (EFA) and Confirmatory Factor Analysis (CFA). It is recalled that Exploratory Factor Analysis (EFA), as noted earlier in the literature reviewed, is commonly used to explore or deduce the underlying structure (dimensions or factors) of a collection of observed variables (items), whereas Confirmatory Factor Analysis (CFA) is performed to demonstrate the construct validity of the explorations or deductions yielded with the EFA (Pérez-Gil & Chacón Moreno, 2000). In other words, with EFA the number of constructs and the underlying factor structure are identified and with CFA the factor structure of a set of observed variables are verified. For the sake of clarity, before moving towardss the actual results two aspects related to this set of results are pointed out.

First, language learning beliefs, as it is pointed out in chapter 3, is considered as a multi-dimensional construct. Note that dimensions are “hypothesized to be specific manifestations of a more general construct” (Clark & Watson, 1995, p. 2). Indeed, language learning beliefs is a blanket term with many subthemes,

spectrums or dimensions. One of the objectives of this study is to identify such spectrums in the COBALTALI. This objective is pursued because it maximizes validity of a measuring instrument. Indeed, researchers, psychometricians and scholars fully suggest that test developers provide evidences of the latent dimensions or subscales related to the core construct of a research instrument. Note that validity is one of the most important criteria (or standard) to judge the soundness of quality of instrument development research, as well as reliability.

Second, the main and often used procedures to determine the dimensionality of a research instrument are expert judgment and factor analysis. This study draws on both procedures, being factor analysis a way of of confirming the results obtained with expert judgment. Factor analysis, which is a group of statistical techniques, concerns the exploration of patterns, referred to as factors, in the subjects' responses, after the administration of the instrument under question. Hence, in this study, whereas the identification of dimensions through expert judgment emerges from an analysis of the items shaping the COBALTALI and is performed before administering the COBALTALI, the extraction of the dimensions, or rather factors, through factor analysis is performed, after the expert judgment process, on the data (beliefs) gathered with the administration of the COBALTALI. The results of these two procedures are compared and discussed in chapter 6. After these key clarifications, the spotlight is then turned to the set of results.

5.3.1. Results of the exploration of factors in the COBALTALI

In order to explore the possible underlying structure (factors or dimensions) of the set of variables (57 items) comprising the COBALTALI, without imposing any predetermined structure, it was initially run Principal Axis Factoring (PAF), an estimation method in Exploratory Factor Analysis, to the data gathered in regards to the beliefs about English language learning and teaching reported by the 563 participants of the Participants' Belief Description Stage. The results obtained by running PAF revealed that the factorial solution which exhibited the greatest conceptual consistency was a four-factor solution (see Appendix I). In other words, the PAF analysis indicated that the items comprising the COBALTALI dealt with four latent variables or dimensions of language learning beliefs. The items that correspond to such factors are shown in Table 28. Given that the set of results shown in Table 28 corresponds to preliminary findings (subsequent Confirmatory Factor Analysis will take place on this set of data), in such table it is only shown the number of the items shaping each factor.

Table 28. The four-factor solution with Principal Axis Factoring

Factor	Items comprising the factors
1	49, 28, 38, 14, 30, 3, 48, 40, 47, 50, 56, 15, 18, 29, 2, 4, 57, 6
2	9, 11, 34, 17, 54, 52, 10, 16, 41, 44, 36, 23, 39, 8, 5, 22, 24
3	32, 45, 31, 53, 42, 43, 13, 33, 46, 51

4	21, 35, 1, 20, 19, 12

For this four-factor solution, shown in Table 28, the items 7 (Para aprender inglés se necesita de interés/actitud para lograrlo) 25 (Es mejor el inglés británico que el Americano), 26 (Es más importante la pronunciación que el acento), 27 (Realizar ejercicios de traducción favorece el aprendizaje del inglés), 37 (Los cursos de inglés por internet son recursos valiosos para apoyar el aprendizaje del inglés), and 55 (En clase de inglés es más importante hacer énfasis en la habilidad de habla que en la gramática) were excluded because they showed no favorable factor loadings.

For the sake of clarity, it is recalled that the factor loading expresses the correlation of the item with the factor. It is the correlation between the vector of subjects' responses to that item, with the vector of (subjects') predicted scores. The factor loading is estimated with a regression equation in which the items are treated as independent variables. Thus, the square of this factor loading indicates the proportion of variance shared by the item with the factor. These results are discussed in the next chapter.

Additionally, it is pointed out that when an adequate exploratory factorial solution is identified, the common subsequent procedure is to report the variance explained by such factor solution, which in simple terms is a measure of how much the respondents' scores reported through each variable (item-belief) shaping an identified cluster (factor) differ from the respondents' scores reported through each variable shaping the other extracted factors. By default, the analysis of the proportion of variance (shared by each item with the factor) performed to the aforementioned factor solution revealed that the variance explained by the four factors extracted above accounts for the 26,480% of the explained variance. Below, in Table 29 the results of this variance analysis are presented.

Table 29. Variance explained by the four factors extracted

Factor	% of explained Variance	Cumulative % of explained variance
1	15,192%	15,192%
2	5,412%	20,603%
3	3,764%	24,368%
4	2,112%	26,480%

The results shown in Table 29 suggest that the extraction of four factors accounts for 26.480% of the common variance: this means that a four-factor model is associated with a percentage of explained common variance of 26.480%. This set of results indicates that although the observed variables

(beliefs) in each cluster (factor) do not share a large amount of variance, the four-factor solution seems to be the most suitable factor model for this dataset.

After the report of these sets of exploratory factor analyses results, which led to identify the dimensionality of the COBALTALI from a quantitative approach and thus to provide evidence of the construct validity of the target instrument, it was proceeded to perform Confirmatory Factor analyses with the aforementioned four-factor solution. Those results are presented in the next section.

5.3.2. Results pertaining to the analysis of sampling adequacy

The results of the previous section, derived from Exploratory Factor Analysis (EFA), revealed that the respondents' data on the basis of the items comprising the COBALTALI, with the exception of the items 7, 25, 26, 27, 37, and 55, can be grouped into four factors (dimensions or underlying structures). This section is devoted to present the results of some Confirmatory Factor Analyses (CFA), which are assumed to demonstrate the construct validity of the explorations or deductions yielded with the previous EFA. Concretely, this section deals with results yielded by running the Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy (Kaiser 1970), and the Bartlett's Test of Sphericity to the four-factor solution obtained with the aforementioned EFA. These two statistical techniques of factor analysis were created to assist users

to assess the adequacy of their correlation matrices for factor analysis. In essence, in this study these analyses aimed at gaining evidence of whether the adopted four-factor solution was consistent with the parameters of the factor analysis.

For a better understanding of why these analyses were performed in this study, before focusing on the results, first, it may be worth having a look at what these analyses deal with. Researchers may be concerned with whether the variables chosen arbitrarily for analysis exhibit correlation matrices which are not appropriate for factor analysis. In order to assist researchers to assess the adequacy of their correlation matrices for factor analysis, the Statistical Package for the Social Sciences (SPSS) provides Bartlett's Test of Sphericity (Bartlett 1950) and the Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy (Kaiser 1970). By default, the SPSS displays all loadings: the KMO and Bartlett's Test table of the Factor output. The KMO measure of sampling adequacy presents an index of the proportion of variance among the variables (between 0 and 1), which is intended to be indicative of underlying or latent common factors. Kaiser (1974) presents a guide (shown in Table 30) often used by researchers and statisticians to verbally describe the results:

Table 30. Guide to interpret KMO values

Kaiser' (1974) Guide	
K MO Value	**Degree of Common Variance**

• O.90 to 1.00 • 0.80 to 0.90 • 0.70 to 0.79 • 0.60 to 0.69 • 0.50 to 0.59 • 0.00 to 0.49	• Marvellous • Meritorious • Middling • Mediocre • Miserable • Unacceptable for factor analysis

For a better understanding of the KMO index, it is important to keep in mind that when the variables (items) share common factor(s), the partial correlations are expected to be small and the KMO values are expected to be close to 1.0 (Kaiser & Rice, 1974).

Now, it is time to address Bartlett's test, which is another indication of the strength of the relationship among variables. The Bartlett's Test of Sphericity compares the observed correlation matrix to the identity matrix. It is assumed to test the hypothesis that the correlation matrix is an identity matrix. An identity matrix is viewed by statisticians as a matrix in which all of the diagonal elements are 1 and all off diagonal elements are 0. Importantly, for factor analysis to be recommended suitable, the Bartlett's Test of Sphericity must be less than 0.05. By the same token, in this test, when the significance level is small, it indicates that the null hypothesis is rejected, which means that the correlation matrix is not an identity matrix, and, in turn it leads to conclude that

there are correlations in the data set that are appropriate for factor analysis. As a rule of thumb, if the variables are perfectly correlated, only one factor is sufficient. If they are orthogonal, it is necessary as many factors as variables.

After having presented some contextual details about the current analysis, which deals with Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy and Bartlett's Test of Sphericity, it is time to focus on the results revealed with these two tests.

Results obtained through the Meyer-Olkin (KMO) measure of sampling adequacy revealed that the sample was consistent with the parameters of the factor analysis (KMO value: 0.850). The assessment of the correlation matrix performed with the Bartlett's Test of Sphericity resulted significant (p=0,00). These results are shown in Table 31.

Table 31. Results of the Meyer-Olkin (KMO) measure of sampling adequacy and the Bartlett's Test of Sphericity

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy		,850
Bartlett's Test of Sphericity	Approx. Chi-Square	6014,647
	Df	1275
	Sig.	,000

The results presented in Table 31 indicate, on the one hand, that the KMO value was “meritorious” (value .850), which implies that this four factor solution is appropriate for factor analysis, and on the other hand, the Bartlett's Test of Sphericity, which resulted $p < 0.00$, indicates that the null hypothesis was rejected, which meant that the correlation matrix was not an identity matrix. In essence, these results lead to conclude that there are correlations in the data set that are appropriate for factor analysis.

Based on the results presented above, which indicated that the data set exhibit correlations that are appropriate for factor analysis, it was subsequently proceeded to conduct Principal Axis Factor Analysis with Promax rotation, in order to assess the underlying structure for the 51 items comprising these four factor solution. It is recalled that the items 7 (Para aprender inglés se necesita de interés/actitud para lograrlo) 25 (Es mejor el inglés británico que el Americano), 26 (Es más importante la pronunciación que el acento), 27 (Realizar ejercicios de traducción favorece el aprendizaje del inglés), 37 (Los cursos de inglés por internet son recursos valiosos para apoyar el aprendizaje del inglés), and 55 (En clase de inglés es más importante hacer énfasis en la habilidad de habla que en la gramática) were excluded for this factor solution because they showed no favorable factor loadings (numerical values that

indicate the strength and direction of a factor on a measured variable). The next section is devoted to present details of such analysis as well as its results.

5.3.3. Result of factor rotation analysis

To begin with, it is highlighted that a common procedure suggested by users of factor analysis, in order to facilitate the interpretation of the factors that are considered relevant, is to rotate the factors that were retained. Following this suggestion, and grounded on the results of the Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy and Bartlett's Test of Sphericity presented in the previous section, which indicated that it was appropriate to subject the data set under question to factor analysis, the four factor solution was subjected to factor rotation through Principal Axis Factor Analysis with Promax rotation. This section is conceived to present such results.

For a better understanding of the target analysis and the results yielded with it, some contextual details are addressed first. To start with, it is important to recall, as pointed out earlier in chapter 3, that within the arena of factor analysis an adequate factorial solution is assumed as that which evidences a balance between parsimony (a model with relatively few factors) and plausibility (a model with enough factors to adequately account for correlations among measured variables). In order to assist researchers to choose an

adequate factorial solution, the SPSS software package provides Principal Axis Factor Analysis with Promax rotation. In more statistical terms, rotation in factor analysis is “a procedure in which the eigenvectors (factors) are rotated in an attempt to achieve simple structure” (Bryant & Yarnold, 1995, p. 132). Rotation maximizes the loading of each variable on one of the extracted factors whilst minimizing the loading on all other factors. In more simple terms, rotation procedure in factor analysis with Promax rotation index produces estimates of correlations among factors and the visualization of such estimates facilitates their interpretability.

Having presented some contextual details of the analysis under question, it is time to focus on the results obtained. The analysis of the initial extracted factors with the Principal Axis Factoring extraction method and the Promax Rotation Method revealed that each of the items comprising the four extracted factors exhibited factor loadings higher than or equal to 0.20 (≥ 0.2) in one or more than one factor. It should be noted that the items 7, 25, 26, 27, 37, and 55 were not counted for in this analysis because they had been deleted earlier given that they showed no factor loadings (see previous results concerning Principal Axis Factor analysis). The results of the rotated solution are presented in Table 32.

Table 32. Factor solution by the method of principal axes with PROMAX rotation (the solution converged in 7 iterations)

Ítem	Factor 1	Factor 2	Factor 3	Factor 4
it3	0,583	-0,181	0,155	-0,118
it14	0,533			
it28	0,533		-0,105	
it29	0,487	-0,193		0,207
it49	0,484	0,146		
it56	0,478			
it2	0,452	-0,102	-0,146	0,123
it30	0,448			0,141
it50	0,443			
it6	0,401	-0,118	0,121	-0,106
it47	0,398	0,122	0,135	
it48	0,370	0,196		
it15	0,354			
it38	0,349	0,256		
it40	0,339	0,223		
it4	0,327			
it18	0,294	0,214	-0,128	
it57	0,259	0,154	0,254	-0,131
it9	-0,182	0,671		
it17		0,490		
it34		0,470	-0,108	0,179
it44		0,461	0,255	-0,110
it52	0,214	0,390	-0,212	-0,244
it23		0,382		0,203
it8		0,375	0,164	
it41	0,172	0,371	0,111	
it11	0,253	0,368	-0,101	0,122
it16	0,138	0,355		
it36		0,338	-0,164	0,185
it54	0,242	0,320		-0,198
it22		0,317	0,143	0,169
it5	0,172	0,315		-0,101
it24		0,310		0,105
it39	0,133	0,305	0,117	
it10	0,245	0,302	-0,117	
it32	-0,173		0,675	0,119
it45			0,604	
it31	-0,129	0,142	0,467	0,266
it13		-0,187	0,437	

Ítem	Factor 1	Factor 2	Factor 3	Factor 4
it53		0,287	0,418	
it46	0,300		0,383	0,126
it42	0,126	0,169	0,367	
it43	-0,156	0,300	0,332	0,101
it33	0,232		0,304	
it51	0,234	0,177	0,301	-0,200
it21		-0,152		0,746
it35			0,126	0,593
it1	-0,202	0,144	0,168	0,544
it20	0,157	0,102		0,511
it19	0,247	-0,108		0,437
it12	0,293	0,353	-0,276	0,354

It is important to recall that the results presented above, in Table 32, are intended to facilitate the shape and interpretation of the factors. From the results presented above, it is evident that there were 32 items (1, 2, 3, 4, 6, 8, 9, 13, 14, 15, 16, 17, 20, 21, 22, 23, 24, 28, 29, 30, 31, 32, 34, 35, 36, 44, 45, 47, 48, 49, 50, and 56) that exhibited prominent factor loadings in one the four factors. Their factor loadings in one of the four factors were higher or equal to 0.20 (≥ 0.2) in comparison to their factor loadings in the other three factors. It may indicate that the pattern or simple structure of those 32 items is more prominent than the simple structure of the other 19 items under rotation (items 5, 10, 11, 12, 18, 19, 33, 38, 39, 40, 41, 42, 43, 46, 51, 52, 53, 54, and 57). In turn, the factor loadings exhibited by these 32 items facilitate the process of obtaining simple and interpretable factors. Although the aforementioned 19 items did not present as prominent factor loadings as the other 32 items did in one of the four factors, anyhow, this factor rotation solution indicated that these 19 items exhibited factor loadings that can be taken as evidence to shape and

interpret the given factors. Overall, these results confirm that a four factor solution can be appropriate to interpret the 51 variables (items) comprising the target instrument (COBALTALI). By virtue of more clarity Table 33 shows the items shaping each factor.

Table 33. Factors Extracted from the COBALTALI[11]

FOUR-FACTOR SOLUTION	
#	FACTOR 1 (18 ITEMS)
2	Escuchar música en inglés favorece el aprendizaje de la lengua inglesa
3	En clase de inglés se debe enfatizar en el aprendizaje de vocabulario
4	Las actividades audiovisuales son importantes para el aprendizaje del inglés
6	Para el aprendizaje del inglés es importante la enseñanza explícita de la gramática
14	El profesor de inglés debe enfatizar mucho en la pronunciación
15	Para aprender inglés es necesario contar con diversos recursos o materiales de clase (libros, Cds, ayudas audiovisuales, ayudas tecnológicas, etc.)
18	Para aprender inglés es importante hacer ejercicios de lecturas en inglés
28	En clase de inglés es importante realizar ejercicios de escritura
29	Se debe enseñar tanto inglés americano como británico
30	En clase se debería enfatizar más en el desarrollo de la habilidad de habla y escucha
38	El profesor de inglés debe motivar a sus estudiantes a aprender ese idioma
40	Se debería procurar en que el alumno desarrolle fluidez en el idioma inglés
47	En clase de inglés se debería hacer más énfasis en la habilidad de habla
48	En clase de inglés las actividades orales en grupo facilitan el aprendizaje
49	La exigencia por parte del docente al estudiante es importante para el aprendizaje del inglés
50	Las actividades competitivas en clase estimulan el interés del estudiante por el aprendizaje del inglés
56	Cantar en inglés favorece el aprendizaje del inglés
57	Es importante que el docente enseñe al estudiante cómo aprender
#	FACTOR 2 (17 ITEMS)
5	La enseñanza del inglés debe ser didáctica
8	Aprender inglés es más fácil si se hace desde niño
9	Para aprender inglés es necesario dedicarle tiempo todos, o casi todos, los días
10	Para aprender inglés es necesario practicar la habilidad de escucha
11	Las clases de inglés deben basarse en interacciones habladas o diálogos
16	Es importante aprender inglés
17	La enseñanza del inglés debe ser lúdica
22	Cuanto más personalizada sea la clase de inglés, más se aprende
23	La enseñanza del inglés debería estar centrada en situaciones cotidianas
24	Para aprender inglés es importante realizar trabajos extra clase
34	Para aprender inglés es necesario pensar en inglés
36	La enseñanza del inglés se debería integrar en la enseñanza de otras asignaturas
39	La enseñanza del inglés debe ser más práctica que teórica
41	Se deben innovar las metodologías para la enseñanza del inglés
44	Si no se practica el inglés se olvida
52	Cuando se quiere aprender inglés se puede

[11] Table 33 is translated into English in Appendix N

54	Un profesor de inglés debe corregir al estudiante en el momento que sea necesario
#	**FACTOR 3 (10 ITEMS)**
13	En clase de inglés se puede recurrir al español
31	Es muy difícil aprender inglés en un país de habla hispana
32	El inglés es un idioma difícil de aprender
33	Para aprender inglés es importante una buena interrelación estudiante – docente
42	Para aprender inglés se necesita de un tutor o profesor
43	Las personas mayores de edad presentan mayor dificultad para aprender inglés
45	La pronunciación del inglés es difícil de aprender
46	Para aprender inglés es necesario estudiarlo de manera presencial
51	Los ejercicios de repetición favorecen el aprendizaje del inglés
53	El aprendizaje del inglés se le facilita más a unas personas que a otras
#	**FACTOR 4 (6 ITEMS)**
1	Para aprender inglés es necesario hacerlo en un país de habla inglesa
12	En clase de inglés se debe hablar un 100% en inglés
19	Para aprender inglés es necesario saber acerca de los países de habla inglesa
20	Para aprender inglés es necesario interactuar con personas cuya lengua nativa es el inglés
21	Los profesores de inglés deben ser de un país de habla inglesa
35	Es importante que el docente de inglés haya estado en un país de habla inglesa

These results indicate that from a quantitative approach, there are 51 items (out of the 57) of the COBALTALI that deal with one of the four dimensions (factors or subscales) of language learning belief, which are correlated. These results, in turn, confirm the previous findings obtained through Exploratory Factor Analysis.

Having accrued more evidence to state that the items that shape the COBALTALI deal with four factors or dimensions of language learning beliefs, the next step is to interpret or label such factors. The next section is devoted to present how these four factors were labeled.

5.3.4. Results of the labeling of the final extracted factors

The results of the last section, concerning the factor rotation analysis with the Principal Axis Factoring extraction method and the Promax Rotation Index revealed that all the 51 variables (items) can be appropriately interpreted with a four factor solution. Based on those results, this section is intended to report how the four extracted factors were labeled. Before proceeding further, it is important to stress that labeling or naming the factors is a subjective task, usually done by the researcher, since it deals with semantic analyses which are beyond the scope of statistic solutions. In this respect, Hooper (2012) points out that this process is often viewed as "a 'black art' as there are no hard or fast rules in naming each dimension" (pag.19).

Keeping in mind the above, which makes it clear that the criteria to label the extracted factors are ultimately subjective, it was opted to label the four factors based on both a thorough semantic analysis, performed by the researcher, of the items comprising the aforementioned factors, and the results of the fourth stage (Instrument Dimensionality Stage) of phase 2 (Instrument Judgment-Quantification Phase). For the sake of clarity, it is recalled that the results of that stage (see results of the Instrument Dimensionality Stage) revealed that 51 of the 57 items, which in that instance of the study were comprising the target instrument (COBALTALI), could be grouped into six macro dimensions of language learning beliefs (Learning Context, Teacher's Role/Profile,

Motivation and Expectations, Learning Strategies and Activities, Teaching Methods/Approaches, and Learning Aptitude and Difficulty*).* Those dimensions emerged from a literature review performed by the researcher on learners' beliefs about language learning, which is the core content of interest of this study. It is important to note that in that stage (Instrument Dimensionality Stage) it was drawn on a panel of content experts to assess whether the aforementioned 57 items were appropriately labeled.

When it is said here that it was opted to label the factors based on the results of the fourth stage (Instrument Dimensionality Stage) of phase 2 (Instrument Judgment-Quantification Phase), it means that the researcher decided to label the factors with some of the labels used in the Instrument Dimensionality Stage. Concretely, the four factors were labeled as Teaching Methods/Approaches, Learning Strategies and Activities, Learning Aptitude and Difficulty, and Teacher's Role/ Profile. The rationale behind this decision is that, to the researcher's knowledge, the items comprising each of these factors deal with such spectrums or dimensions of language learning beliefs. Table 34 shows the labels for each factor as well as the items comprising them.

Table 34. The items and the labeling of the four extracted factors

NAME OF THE FACTORS	
#	FACTOR 1: ***Teaching Methods/Approaches*** **(18 ITEMS)**
2	Escuchar música en inglés favorece el aprendizaje de la lengua inglesa
3	En clase de inglés se debe enfatizar en el aprendizaje de vocabulario

4	Las actividades audiovisuales son importantes para el aprendizaje del inglés
6	Para el aprendizaje del inglés es importante la enseñanza explícita de la gramática
14	El profesor de inglés debe enfatizar mucho en la pronunciación
15	Para aprender inglés es necesario contar con diversos recursos o materiales de clase (libros, Cds, ayudas audiovisuales, ayudas tecnológicas, etc.)
18	Para aprender inglés es importante hacer ejercicios de lecturas en inglés
28	En clase de inglés es importante realizar ejercicios de escritura
29	Se debe enseñar tanto inglés americano como británico
30	En clase se debería enfatizar más en el desarrollo de la habilidad de habla y escucha
38	El profesor de inglés debe motivar a sus estudiantes a aprender ese idioma
40	Se debería procurar en que el alumno desarrolle fluidez en el idioma inglés
47	En clase de inglés se debería hacer más énfasis en la habilidad de habla
48	En clase de inglés las actividades orales en grupo facilitan el aprendizaje
49	La exigencia por parte del docente al estudiante es importante para el aprendizaje del inglés
50	Las actividades competitivas en clase estimulan el interés del estudiante por el aprendizaje del inglés
56	Cantar en inglés favorece el aprendizaje del inglés
57	Es importante que el docente enseñe al estudiante cómo aprender
#	**FACTOR 2: *Learning Strategies and Activities*** **(17 ITEMS)**
5	La enseñanza del inglés debe ser didáctica
8	Aprender inglés es más fácil si se hace desde niño
9	Para aprender inglés es necesario dedicarle tiempo todos, o casi todos, los días
10	Para aprender inglés es necesario practicar la habilidad de escucha
11	Las clases de inglés deben basarse en interacciones habladas o diálogos
16	Es importante aprender ingles
17	La enseñanza del inglés debe ser lúdica
22	Cuanto más personalizada sea la clase de inglés, más se aprende
23	La enseñanza del inglés debería estar centrada en situaciones cotidianas
24	Para aprender inglés es importante realizar trabajos extra clase
34	Para aprender inglés es necesario pensar en inglés
36	La enseñanza del inglés se debería integrar en la enseñanza de otras asignaturas
39	La enseñanza del inglés debe ser más práctica que teórica
41	Se deben innovar las metodologías para la enseñanza del inglés
44	Si no se practica el inglés se olvida
52	Cuando se quiere aprender inglés se puede
54	Un profesor de inglés debe corregir al estudiante en el momento que sea necesario
#	**FACTOR 3: *Learning Aptitude and Difficulty*** **(10 ITEMS)**
13	En clase de inglés se puede recurrir al español
31	Es muy difícil aprender inglés en un país de habla hispana
32	El inglés es un idioma difícil de aprender
33	Para aprender inglés es importante una buena interrelación estudiante – docente
42	Para aprender inglés se necesita de un tutor o profesor
43	Las personas mayores de edad presentan mayor dificultad para aprender inglés
45	La pronunciación del inglés es difícil de aprender
46	Para aprender inglés es necesario estudiarlo de manera presencial
51	Los ejercicios de repetición favorecen el aprendizaje del inglés
53	El aprendizaje del inglés se le facilita más a unas personas que a otras
#	**FACTOR 4: *Teacher's Role/ Profile*** **(6 ITEMS)**
1	Para aprender inglés es necesario hacerlo en un país de habla inglesa
12	En clase de inglés se debe hablar un 100% en inglés
19	Para aprender inglés es necesario saber acerca de los países de habla inglesa
20	Para aprender inglés es necesario interactuar con personas cuya lengua nativa es el inglés
21	Los profesores de inglés deben ser de un país de habla inglesa
35	Es importante que el docente de inglés haya estado en un país de habla inglesa

From the results presented in Table 34 it can be observed that the number of items that shape each factor is gradually reduced from factor 1 to factor 4. Factor 1, named as Teaching Methods/Approaches, consisted of 18 items (variables); factor 2, labeled as Learning Strategies and Activities, was shaped by 17 items; factor 3, identified as Learning Aptitude and Difficulty, was comprised by 10 items, and factor 4, labeled as Teacher's Role/Profile, with the lowest number of items, consisted of 6 variables. The variables loading on the first factor (Teaching Methods/Approaches) relate to the teaching principles and procedures that define the class instruction. Among the issues that address the variables (items) that shape this first factor are the importance of listening to English language songs (item 2), learning vocabulary, audiovisual activities, explicit instruction of grammar, pronunciation, competition and group activities, teacher exigency, and the four macro communicative skills (speaking, listening, reading, and writing) in the English classroom instruction. The second dimension contains items that deal with specific actions and strategies for the learner to make language learning easier, faster, and more effective. Among the issues that address the variables (items) that shape this second factor (Learning Strategies and Activities) are the importance of a ludic, didactic, practical, personalized, communicative, and an innovative instruction. This factor also tackles the usefulness of thinking in English, starting the English learning process in an early age, having discipline in the learning process, assigning extra class work, and addressing daily communicative

situation when attempting to learn English effectively. The third factor (Learning Aptitude and Difficulty) comprises items that are related to some aspects of the English language that turn out to be difficult for the learners and some learning conditions that facilitate and hamper the learning process. The fourth factor (Teacher's Role/ Profile) is shaped by items that deal with the types of functions or roles that are expected to be performed by the English teacher during the class instruction. In the following chapter these results will be discussed.

In essence, this section of the result chapter was dedicated to assign names to the four factors that appeared to be appropriately determined through the factor rotation analysis with the Principal Axis Factoring Extraction Method and the Promax Rotation Method. It was opted to name the factors as Teaching Methods/Approaches, Learning Strategies and Activities, Learning Aptitude and Difficulty, and Teacher's Role/ Profile. Having done this, it was proceeded to perform analysis of correlations among the aforementioned four factors. The next section presents the results of such analysis.

5.3.5. Results of the analysis of correlations among the extracted factors

As a subsequent step to the results obtained in the two previous sections of this chapter, this section of the study is intended to report the correlations

among the factors which emerged empirically in the previous factor analysis. In essence, with this set of results it can be predicted whether any observed change in one of the four factors under examination can have a correlation with any change in the other factors. In other words, this type of analysis drives to determine in some systematic fashion whether the factors under examination vary together, oppositely, or separately when any change is observed in one of them. The report of these levels of correlation among the factors of the COBALTALI is taken as a cumulative evidence of the construct validity of the target instrument, which is something firmly pursued with this new language belief instrument.

The Pearson Correlation Coefficient (referred to as PCC and commonly represented by the Greek letter *ρ* (rho) or Pearson's *r)* was taken as the measure to estimate such correlations. Before proceeding with the results, it may be worth stressing that the PCC is widely used in social science research measuring instruments as a measure of the degree of linear dependence between two variables. In statistical terms, it is the covariance of the two variables divided by the product of their standard deviations. Note that the formula for *ρ* is:

$$\rho_{X,Y} = \frac{\operatorname{cov}(X,Y)}{\sigma_X \sigma_Y}$$

where:

- cov is the covariance

- σ_X is the standard deviation of X

For the sake of clarity concerning the interpretation of the Pearson correlation coefficients, it is worth noting that the correlation coefficient ranges from −1 to 1, where 1 is total positive correlation, 0 is no correlation, and −1 is total negative correlation. Although the interpretation of a correlation coefficient depends on the context and purposes, the following guide (see Table 35) that Evans (1996) suggests is often adopted by psychometricians, and was embraced in this study, to interpret correlation coefficient values.

Table 35. Common interpretations of Pearson correlation coefficients

Values and Interpretations	
• Exactly –1.	A perfect (negative) linear relationship
• –0.70.	A strong (negative) linear relationship
• –0.50.	A moderate (negative) relationship
• –0.30.	A weak (negative) linear relationship
• 0.	No linear relationship
• .00-.19	A very weak (positive) linear relationship
• .20-.39	A weak (positive) relationship
• .40-.59	A moderate (positive) linear relationship
• .60-.79	A strong(positive) linear relationship
• .80-1.0	A very strong (positive) linear relationship
• Exactly +1.	A perfect uphill (positive) linear relationship

Now, moving towardss the results of this analysis, it was evidenced that all the correlations were significant, according to the criteria Pearson correlation coefficients (p<0,01) with a confidence level of 99%. It is recalled that a statistically significant finding is one that is determined (statistically) to be very unlikely to happen by chance. The data obtained in this analysis are presented in Table 36.

Table 36. Correlations among the factors that emerged empirically through factor analysis

Factor	*Teaching Methods/ Approaches*	*Learning Strategies and Activities*	*Learning Aptitude and Difficulty*
Learning Strategies and Activities	0,676**		
Learning Aptitude and Difficulty	0,238**	0,310**	
Teacher's Role/ Profile	0,246**	0,282**	0,284**

**p < 0,01

In sum, the results presented in this instance of the study revealed, based on the calculation of Pearson's correlation coefficient, that there is a positive linear correlation between the paired data: Learning Strategies and Activities with Teaching Methods/Approaches; Learning Aptitude and Difficulty with Teaching

methods/Approaches and Learning Strategies and Activities; Teacher's Role/ Profile with Teaching methods/Approaches, Learning Strategies and Activities, and Learning Aptitude and Difficulty. However, although all the paired data presented positive (r) values, denoting positive linear correlation, the strength of correlation among the factors under examination were not in the same extent. For example, the strength of association between the Learning Strategies and Activities factor and the Teaching Methods/Approaches factor is stronger (0,676) than the strength of association between the Learning aptitude and difficulty factor and the Teaching Methods/Approaches factor (0,238). Note that a positive correlation coefficient means that as the value of one variable increases, the value of the other variable increases; as one decreases the other decreases. In essence, these results indicate that when any change in one of the factors under examination is given, it is expected to observe a corresponding change in the other factors under examination. Also note that correlation does not imply causation, that is, it is not expected that a given change in a factor such as the Learning Strategies and Activities will cause a change in a factor such as the Teaching Methods/Approaches. Likewise, it should be highlighted that when the linear relationship between two factors is known, then it is easier to find the best way to deal with such factors together.

With this set of results it is closed the cycle of factor analyses intended to examine the COBALTALI dimensionality through a quantitative approach, which is in essence evidence of the construct validity of the COBALTALI. By

virtue of clarity, an overview of what has been reported in this Section C of the result chapter is presented further.

SECTION- C SUMMARY

This third section of the chapter has addressed the results related to one of the main objectives of the study: to provide evidence of the construct validity that holds the target instrument (Colombian Beliefs about Language Learning and Teaching Inventory or COBALTALI) in relation to its dimensionality identified through a quantitative approach (factor analysis). Fundamentally, it has dealt with the third research question of the study (What dimensions of language learning beliefs, can be identified through factor analysis, in the beliefs about English language teaching and learning reported by Colombian university students?). Throughout this part of the chapter it was reported a series of sets of results that emerged from the performance of a group of factor analysis statistical techniques, to the data corresponding to the beliefs about English language learning and teaching reported by the 563 participants of the Participants' Belief Description Stage.

This part started by presenting some contextual details related to the exploratory and confirmatory factor analyses intended to be performed and then moved to present the set of results related to the exploration of factors in

the COBALTALI by running Principal Axis Factoring (PAF), an estimation method in Exploratory Factor Analysis. Such analysis revealed that the factorial solution which exhibited the greatest conceptual consistency was a four-factor solution and that the variance explained by the four factors extracted accounts for 26,48% of the explained variance. For this factorial solution the items 7 (Para aprender inglés se necesita de interés/actitud para lograrlo) 25 (Es mejor el inglés británico que el Americano), 26 (Es más importante la pronunciación que el acento), 27 (Realizar ejercicios de traducción favorece el aprendizaje del inglés), 37 (Los cursos de inglés por internet son recursos valiosos para apoyar el aprendizaje del inglés), and 55 (En clase de inglés es más importante hacer énfasis en la habilidad de habla que en la gramática) were excluded because they showed no favorable factor loadings. Note that these seven ítems were excluded for this factorial solution but were considered for the examination of the participants' beliefs (the second objective of the study).

This Section C then focused on reporting subsequent Confirmatory Factor analyses with the aforementioned four-factor solution. Those Confirmatory Factor analyses were assumed to demonstrate the construct validity of the explorations or deductions yielded with the previous Exploratory Factor Analysis (EFA). The results, obtained through the Meyer-Olkin (KMO) Measure of Sampling Adequacy, and the Bartlett's Test of Sphericity to the four-factor solution obtained with the aforementioned EFA, revealed that the sample was

consistent with the parameters of the factor analysis (KMO value was 0.850 and Bartlett's Test of Sphericity was p=0,00).

Subsequently, in order to obtain more factorial evidence regarding the adequacy of a four factorial solution for the retained 51 items it was proceeded to assess the underlying structure for the 51 items comprising these four factor solution with the performance of Principal axis factor analysis with Promax Rotation Index. Such assessment indicated, and in turn confirmed, that there were four underlying structures (factors or subscales) for such 51 items and that those factors were correlated. For example, there were 32 items (1, 2, 3, 4, 6, 8, 9, 13, 14, 15, 16, 17, 20, 21, 22, 23, 24, 28, 29, 30, 31, 32, 34, 35, 36, 44, 45, 47, 48, 49, 50, and 56) that exhibited prominent factor loadings in one the four factors (higher or equal to 0.20 (≥ 0.2). The other remaining 19 items (items 5, 10, 11, 12, 18, 19, 33, 38, 39, 40, 41, 42, 43, 46, 51, 52, 53, 54, and 57) also presented prominent factor loadings in one the four factors, which, overall, led to conclude that there were four correlated factors in the data.

After that, this Section C centered on reporting how the four aforementioned factors were labeled. The report revealed that Factor 1 (shaped by 18 items), was labeled as Teaching Methods/Approaches; Factor 2 (shaped by 17 items) was labeled as Learning Strategies and Activities; Factor 3 (comprised by 10

items) was identified as Learning Aptitude and Difficulty, and factor 4 (consisted of 6 variables) was labeled as Teacher's Role/ Profile.

Finally, this section of the chapter closed with the report of an analysis, with Pearson's correlation coefficient, intended to estimate the degree of linear dependence between the extracted factors. The results of that analysis revealed that there was a positive linear correlation between the paired data (the four factors), indicating that the factors under examination can vary together when any change is observed in one of them.

Overall, the sets of results reported in this part of the chapter indicated, according to the fourth research question of the study (What dimensions of language learning beliefs, can be identified through factor analysis, in the beliefs about English language teaching and learning reported by Colombian university students?) that the items shaping the COBALTALI, with the exception of the items 7, 25, 26, 27, 37, and 55, correspond to four factors (dimensions of language learning beliefs) that can be identified as Teaching Methods/Approaches, Learning Strategies and Activities, Learning Aptitude and Difficulty, and Teacher's Role/ Profile. It is important to keep in mind that these findings are based on a quantitative approach (factor analysis) performed to the participants' beliefs reported through the administration of the COBALTALI because from a qualitative approach (expert judgment) the items

shaping the COBALTALI address six dimensions or subscales of language learning beliefs (Learning Context, Teacher's Role/Profile, Motivation and Expectations, Learning Strategies and Activities, Teaching Methods/Approaches, and Learning Aptitude and Difficulty). In the following chapter these findings will be discussed in detail.

The following part of this chapter is dedicated to report the results related to some reliability analysis performed to the COBALTALI for the four factors obtained with factor analyses. Such results are intended to answer the fifth research question of the study: What dimensions of language learning beliefs, can be identified through factor analysis, in the beliefs about English language teaching and learning reported by Colombian university students?

5.4. Section D: Results of the COBALTALI reliability properties based on the four-factor solution

As pointed out earlier, one of the purposes of this study is to develop a language belief inventory with adequate construct validity and reliability properties, being the latter the focus of this result report. On this vein, the following lines are devoted to report the evidence of the reliability properties of the COBALTALI regarding both the aspect of Internal Consistency and Stability for the empirical scales (the four factors) obtained with factor analyses. In this

sense, the results reported in this part of the study deal with reliability evidence of the COBALTALI based on the data corresponding to the beliefs about English language learning and teaching reported by the 563 participants of the Participants' Belief Description Stage. Accordingly, this report addresses the fifth research question posed to guide the study: What evidence of reliability does the target instrument – COBALTALI – show according to the factors emerged through factor analysis?

This Section D of the chapter starts by reporting the results of the reliability properties of the COBALTALI regarding its internal consistency characteristics. It continues by presenting the reliability evidence of such instrument with respect to the aspect of stability. Section D closes by showing descriptive results obtained to the four factors extracted empirically, through the measures of central tendency and of variability or dispersion.

5.4.1. Results of the COBALTALI reliability analysis regarding the aspect of internal consistency for the four scales obtained with factor analyses

This section is devoted to present the results pertaining to a reliability analysis regarding the aspect of internal consistency for the four factors extracted in the previous factor analyses (Teaching Methods/Approaches, Learning Strategies and Activities, Learning Aptitude and Difficulty, and Teacher's Role/ Profile).

For this analysis it was drawn on Cronbach's Alpha Index, which is a statistical measure widely used by social science researchers when attempting to estimate internal consistency reliability of a research instrument from a quantitative approach.

It may be pertinent to recall that this type of analysis was already performed, but to the six dimensions (also referred to as domains or scales) that were identified through expert judgment: Learning Strategies and Activities, Teaching Methods/Approaches, Learning Aptitude and Difficulty, Motivation and Expectations, Teacher's Role/ Profile, and Learning Context. In a different manner, the current analysis is performed to the four factors extracted through exploratory and confirmatory factor analyses, which were labeled as Teaching Methods/Approaches, Learning Strategies and Activities, Learning Aptitude and Difficulty, and Teacher's Role/ Profile.

It seems appropriate to focus straightaway on the results of this analysis without further explanation of what it deals with, given that details of what this type of analysis consists in were presented earlier, in this chapter (see the section *Results of the Reliability Analysis Regarding the Aspect of Internal Consistency),* because this type of analysis was already performed, but to the six initial dimensions which emerged through expert judgment.

The results of this analysis revealed that the four empirical scales extracted through factor analysis (Teaching Methods/Approaches, Learning Strategies and Activities, Learning Aptitude and Difficulty, and Teacher's Role/ Profile) demonstrated evidence of internal consistency reliability (which is concerned with the interrelatedness of a sample of test items), with Cronbach's alpha values ≥ .72. These results denote that the items comprising the factors are correlated with one another inside the factor, and therefore they measure the same aspects of the domain of content (learners' beliefs about language learning). The data obtained in this analysis are presented in Table 37.

Table 37. Cronbach's alphas for the four scales extracted through factor solutions

Scale	Items shaping the scales	Cronbach's alphas (α)
Teaching Methods/Approaches	2, 3, 4, 6, 14, 15, 18, 28, 29, 30, 38, 40, 47, 48, 49, 50, 56, 57	0,820
Learning Strategies and Activities	5, 8, 9, 10, 11, 16, 17, 22, 23, 24, 34, 36, 39, 41, 44, 52, 54.	0,801
Learning Aptitude and Difficulty	13, 31, 32, 33, 42, 43, 45, 46, 51, 53.	0,722
Teacher's Role/Profile	1, 19, 20, 21, 35	0,724

For a better understanding of the results presented above, in Table 37, it should be recalled that, generally, alpha coefficient ranges in value from 0 to 1 and that a reliability coefficient of .70 or higher is considered "acceptable" in most social science research situations. However, when alpha coefficient is

too high it may imply that there are some redundant items as they are testing the same question but in a different guise. Taking this into account, it can be concluded, as noted above, that as the Cronbach's alpha values obtained in this analysis were ≥ .72., the items comprising each of the four factor under assessment, demonstrated evidence of "acceptable" internal consistency (or interrelatedness).

It is also important to note that the results presented in Table 37 correspond to Cronbach's alpha calculated after the removal of the item 12, which, besides presenting similar factor loadings (0.35) into two factors, showed the lowest discrimination ability. The removed item 12 (En clase de inglés se debe hablar un 100% en inglés) had been shaping the factor labeled as *Teacher's and student's role/ profile.* It implies that this factor is now comprised by only five items (1, 19, 20, 21, and 35). The results of this analysis will be discussed in the next chapter.

Once this analysis was performed, a new reliability analysis, regarding the aspect of stability for the scales defined empirically (the four factors) took place. The results of such analysis are presented further.

5.4.2. Results of the COBALTALI reliability analysis regarding the aspect of stability for the four scales obtained with factor analyses

The previous section focused on the results concerning the reliability analysis regarding the aspect of internal consistency for the four factors obtained with factor analyses. This section is centered on presenting the results pertaining to a reliability analysis regarding the aspect of stability for the (same) four factors obtained with factor analyses. Concretely, these results are intended to determine whether the measuring instrument under assessment is reliable over time (stability test-retest correlations coefficients). As details of what this analysis consists in were presented earlier, when this same analysis was first performed in this study (see the section Reliability Analysis Regarding the Aspect of Stability for the Six Scales which Emerged a Priori), this section mainly focused on the results.

The results of this analysis, aimed at assessing whether the COBALTALI yields consistent scores by administering it repeatedly, revealed that the scales defined empirically – the four factors - demonstrated evidence of stability reliability, through a Correlation coefficient test-retest (Spearman ρ), with correlations higher than 0.79 in all the cases, being the scale Learning Aptitude and Difficulty the most consistent (0.89). The data obtained in this analysis are presented in Table 38.

Table 38. Correlation coefficient test-retest (Spearman ρ) for scales obtained empirically (n = 29)

SCALE	ρ of Spearman
Teaching methods/approaches	0,845**
Learning strategies and activities	0,797**
Learning aptitude and difficulty	0,896**
Teacher's and student's role/ profile	0,869**
**p < 0,01	

The results presented in Table 38 clearly evidenced that the four factors exhibited either "strong" or "very strong" Test-retest correlation coefficients. These results revealed that the factor that yielded the most consistent scores, based on the (Spearman ρ) correlation coefficient test-retest, by administering it repeatedly was Learning Aptitude and Difficulty and the factor that yielded the least consistent scores was Learning Strategies and Activities. Overall, it can be said that the scores obtained when the COBALTALI was "at time 1" were very consistent with the scores obtained when such instrument was administered "at time 2". Hence, these results may entice to think that the four factors under analysis, comprising the COBALTALI, yield reliable scores concerning the aspect of stability. Further comments about these results are found in the next chapter.

Herein, the results pertaining to the reliability analysis regarding the aspect of stability for the four factors obtained with factor analyses have been presented. These results constituted evidence to answer the fifth research question posed to guide this study: What evidence of reliability does the target instrument – COBALTALI – show according to the factors emerged through factor analysis?

The following section is devoted to present descriptive results obtained to the four factors extracted empirically, through measures of central tendency and measures of variability or dispersion. The results concerning the measures of central tendency presented further include the mean and median and the results pertaining the measures of variability include the standard deviation (or variance), the minimum and maximum values of the variables comprising the four factors.

5.4.3. Results of the descriptive analysis to the four factors extracted empirically

In order to complement and provide a simple or general summary of the observations that have been made to the four factors extracted through factor analysis, labeled as Teaching Methods/ Approaches, Learning Strategies and

Activities, Learning Aptitude and Difficulty, and Teacher's Role/ Profile, a descriptive analysis, based on some (statistic) measures of central tendency and some measures of variability or dispersion, is presented in this section. The measures of central tendency included in this analysis were the mean and median and the measures of variability were the standard deviation (or variance) and the minimum and maximum values of the variables comprising the four factors. The results of such descriptive analysis are presented in Table 39.

Table 39. Descriptive statistics for the factors extracted empirically

	Teaching Methods/ Approaches	Learning Strategies and Activities	Learning Aptitude and Difficulty	Teacher's Role/ Profile
Minimum possible	18	17	10	5
Maximum possible	90	85	50	25
Minimum	18	17	10	5
Maximum	61	62	38	25
Mean	30,18	28,23	22,89	13,75
Median	30,00	27,00	23,00	14,00
Std. Deviation	6,535	6,318	5,197	3,681
Variance	42,700	39,917	27,006	13,548

As can be seen in Table 39, the factor labeled as Teaching Methods/ Approaches, is the "category" with the most prominent values, which is something expected as this factor contains the highest number of items or variables (18). The factors that follow this descending order are Learning

Strategies and Activities, with 17 items; Learning Aptitude and Difficulty, with 10 items; and Teacher's Role/ Profile, with 5 items. Logically, the other values concerning the measures of central tendency and the measures of variability or dispersion differ according to this factor-descending order. The interpretations of these results are presented in the next chapter.

From the above it is noticeable that from a factor analysis framework the COBALTALI exhibits adequate evidence of internal consistency and stability reliability when its variables (items) are grouped into the abovementioned four factors (dimensions). In the next chapter a broader space is dedicated to discuss all these sets of results.

SECTION- D SUMMARY

This fourth section of the chapter has addressed the results related to the internal consistency and stability reliability of the COBALTALI according to the four factors extracted through exploratory and confirmatory factor analyses, labeled as Teaching Methods/ Approaches, Learning Strategies and Activities, Learning Aptitude and Difficulty, and Teacher's Role/ Profile. Essentially, it aimed at providing answers to the fifth question of the study: What evidence of reliability does the target instrument – COBALTALI – show according to the

factors emerged through factor analysis? Concretely, throughout this section of the chapter three sets of results have been reported.

The first set had to do with the evidence obtained on the internal consistency reliability of the COBALTALI, based on the performance of Cronbach's Alpha Index to the beliefs about English language learning and teaching reported by the 563 participants of the Participants' Belief Description Stage, which were examined according to the four factors extracted through exploratory and confirmatory factor analyses. This set of results revealed that all the four Cronbach's alpha values obtained in this analysis were ≥ .72, indicating that the items comprising each of the four factors under assessment demonstrated evidence of "acceptable" internal consistency (or interrelatedness).

The second set of results dealt with the evidence obtained on the stability reliability of the COBALTALI, based on the performance of the Spearman's Correlation measure (stability test-retest correlations coefficients) to the data obtained in a test-retest process with a sample of 29 participants. These results, based on the four factors extracted through factor analyses revealed that the COBALTALI inventory yields stable results over time, which sounds pleasing because instruments of this nature are expected to produce consistent scores over time.

The third set of results concerned the descriptive analysis performed to the four factors extracted empirically (measures of central tendency and variability), which included the examination of mean, median, standard deviation and minimum and maximum values of the variables shaping the four factors. Through this analysis it was shown that the factor labeled as Teaching Methods/ Approaches was the “dimension” with the most prominent values (mean: 30,18; median: 30,00; Std. Deviation: 6,535; and Variance: 42,700) due to being the scale shaped with the highest number of items (18). The values presented by the factor labeled as Learning Strategies and Activities were relatively close to the previous factor (mean: 28, 23; median: 27,00; Std. Deviation: 6,318; and Variance: 39,917). The values exhibited by the factor labeled as Learning Strategies were relatively close to the previous factor (mean: 28,23; median: 27,00; Std. Deviation: 6,318; and Variance: 39,917) because this factor was shaped by 17 items. The values exhibited by the factor labeled as Learning Aptitude and Difficulty differed a bit more (mean: 22,89; median: 23,00; Std. Deviation: 5,197; and Variance: 27,006) because this factor was shaped by 10 items. The factor with the lowest values was Teacher’s Role/Profile (mean: 13,75; median: 14,00; Std. Deviation: 3,681; and Variance: 13,548) because it contained only 5 items according to the previous reliability analyses.

After the report of this body of reliability evidence of the COBALTALI the next section presents the results related to the extent the gender, English level,

socioeconomic stratum and age variables affect learners' beliefs about English language teaching and learning. The following and last section of this chapter is dedicated to report such results.

5.5. Section E: Results on how gender, English level, socioeconomic stratum and age variables affect learners' beliefs about English language teaching and learning

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The previous part of this chapter mainly focused on reporting evidence of the reliability properties of the COBALTALI based on the four factors extracted through statistical procedures. Following this quantitative line of analysis, this part of the chapter is devoted to present the results related to the examination of the extent the variables of gender, English level, socioeconomic stratum, and age affect learners' beliefs about English language teaching and learning, which deals with the third objective of the study and the last four research questions: Does gender affect Colombian learners' beliefs about English language teaching and learning?, Does English level affect Colombian learners' beliefs about English language teaching and learning?, Does socioeconomic stratum affect Colombian learners' beliefs about English language teaching and learning? and Does age affect Colombian learners' beliefs about English language teaching and learning?. It should be recalled that it was chosen to examine these four variables because in the researcher's

opinion they were the participants' aspects that could exert the strongest influence on their language learning beliefs. Also note that there is a lack of studies in Colombia intended to evidence how such variables yield any effect on language learning beliefs.

This examination is based on the previous results that indicated that the variables (items) shaping the COBALTALI, with the exception of the items 7, 12, 25, 27, 37, and 55 can be adequately interpreted through a four factor solution. It is pertinent to recall that those factors were labeled as Teaching Methods/ Approaches, Learning Strategies and Activities, Learning Aptitude and Difficulty, and Teacher's Role/ Profile.

This section of the chapter, the last one, starts with the results related to the gender variable, and then moves towardss the results pertaining to the English level variable. It then focuses on the results about the socioeconomic stratum variable and closes with those of the age variable.

5.5.1. Results related to the gender variable

This section is dedicated to present the results concerning comparisons of means according to the gender variable. Specifically, this analysis aims at

establishing whether there are any gender differences in the scores of the four empirical factors, labeled as Teaching Methods/Approaches, Learning Strategies and Activities, Learning Aptitude and Difficulty, and Teacher's Role/ Profile, through a Student's t test for independent samples. Thus, these results are intended to answer the seventh research question of this study: Does gender variable affect learners' beliefs about English language teaching and learning?

Before embarking upon the results, key contextual details about the gender and the method of analysis are presented. The sample for this analysis, which is the same involved in the Participants' Belief Description Stage, consisted of 275 males (48,8%) and 288 females (51,2%).They were university students from six universities located in Bogotá, enrolled in different undergraduate programs in those universities, who voluntarily decided to take part in this study. As for the method of analysis it was a Student's t test. This is one of the most commonly used statistical significance tests for the comparison of two means. In this case, the compared means pertain to male and female scores. The outcome of this test is the acceptance or rejection of the null hypothesis (H_0). The null hypothesis is assumed to state that any differences, discrepancies or suspiciously outlying results in the comparison of the two means are purely due to random and not systematic errors.

Now the spotlight goes on the results. The scores obtained with the performance of the Student's t test to the four factors extracted empirically, evidenced, in all the cases, homoscedasticity (equality of variance between groups). From a more detailed perspective, slight but not statistically significant differences were found at 1% ($p < 0.01$) on the scales of Teaching Methods/Approaches and Learning Strategies and Activities, in which men scored slightly higher than women (about 1.5 points), indicating that men held these beliefs in a lower level (keeping in mind that the rating scale is reversed, so that, as the score increases belief level decreases). In the other two scales no significant differences ($p < 0.01$) were found. These results are displayed in Table 40.

Table 40. Student's t test for gender differences

Factor	Gender	N	Mean	*t*	Significance
Teaching Methods/Approaches	Male	275	30,95	2,747	0,006
	Female	288	29,44		
Learning Strategies and Activities	Male	275	28,99	2,792	0,005
	Female	288	27,51		
Learning Aptitude and Difficulty	Male	275	22,85	-0,157	0,875
	Female	288	22,92		
Teacher's Role/ Profile	Male	275	13,84	0,581	0,562
	Female	288	13,66		

The results presented in Table 40 indicate that the both independent variables (275 males and 288 females) exhibited almost the same percentage of scores concerning the items comprising the four factors under analysis. In other words, the two sets of data were not significantly different from each other.

These results then may suggest that the differences observed (0,006 concerning the factor labeled as Teaching Methods/Approaches, 0,005 pertaining to the factor labeled as Learning Strategies and Activities, 0,875 corresponding to the Learning Aptitude and Difficulty factor, and 0,562 concerning the Teacher's Role/ Profile factor were purely due to random errors and not systematic errors. Overall, these results indicate that the male and female participants in this study held almost the same English language learning beliefs comprising the four factors under study.

After presenting the results related to the comparison of means in the four dimensions extracted through factor analysis according to the variable of gender, the following section aims at presenting the comparison of means according to the English level variable.

5.5.2 Results related to the English level variable

This section is conceived to present the results on the comparison of means according to the English level variable. For this purpose, a one-way ANOVA analysis, which is used to determine whether the means are statistically different, and a Post Hoc test were performed.

Before focusing on the results it should be noted that the results obtained with a one-way ANOVA analysis deal with a table of means, interval or ratio scale (labeled as F, for F-ratio) and standard deviations. That table also exhibits a column labeled as “Sig.” or “*p*” (which is the *p* value). The *p* value (exhibited in the Sig. column) is the exact significance level of the ANOVA analysis, thereby this value is assumed as of the major interest of the researcher. If the value obtained in the *p* column (or Sig.) is less than the critical value of alpha (α), set by the researcher, which is usually set at .05, then the effect is said to be significant. In other words, if the *p* value is less than or equal to the “α" level (.05) then the null hypothesis (H_0), that the variances are equal, is assumed to be rejected. On the contrary, if the *p* value is greater than “α" level, then the researcher fails to reject the null hypothesis. From the above, it could be said that the interpretation of the result of the current analysis is primary based on the values obtained in the *p* or (Sig.) column. Having said this, it is time to focus on the aforementioned results.

It is recalled that the sample corresponded to students from different English levels (A1, A2, B1, B2, and C1, according to the European Framework of Reference). As it was shown in Figure 4, in the fourth chapter, 37,12% of the participants corresponded to A1 English level, 36,06% to A2, 18,65% to B1, 4,44% to B2, and 1,24% to C1. For this analysis, it was decided to combine the two English level groups B2 and C1 since the study sample included few students corresponding to these two groups (17 students of B2 and 15

students of C1). There was a set of students (2,49%) who did not report their English level.

The results obtained through the one-way ANOVA analysis (shown in Table 41), assumed to indicate whether there are significant differences in the mean scores on the four factors under examination across the four English level groups (A1, A2, B1, B1-C1), evidenced that there were only significant differences in the factor labeled as Learning Aptitude and Difficulty [F (3) = 27.527, p = 0.000], concerning the English level variable. These results indicate that as the English level is increased, the scores in the factor labeled as Learning Aptitude and Difficulty are also increased.

Table 41. Results of one-way ANOVA analysis taking English level as an independent variable

Factor	Level	N	Mean	Std. Deviation	F	*p*
Teaching Methods/ Approaches	A1	209	30,14	6,888	2,173	0,090
	A2	203	30,67	6,286		
	B1	105	29,35	6,228		
	B2-C1	32	27,94	5,674		
Learning Strategies and Activities	A1	209	28,31	6,512	0,447	0,720
	A2	203	28,17	5,967		
	B1	105	28,05	6,887		
	B2-C1	32	26,94	5,022		
Learning Aptitude and Difficulty	A1	209	21,03	4,893	27,527	0,000
	A2	203	22,85	4,829		
	B1	105	25,68	5,107		
	B2-C1	32	26,44	3,654		
Teacher's Role/ Profile	A1	209	13,55	3,843	1,313	0,269
	A2	203	13,89	3,627		
	B1	105	14,16	3,509		
	B2-C1	32	12,91	3,486		

The results shown in Table 41 evidenced that in the factors labeled as Teaching Methods/ Approaches, Learning Strategies and Activities, and Teacher's Role/ Profile the *p* values were greater than the "α" level (set at .05). Based on these results it can be said that the researcher failed to reject the null hypothesis on these three factors.

In order to establish between which pairs of English levels there were significant differences in the factor labeled as Learning Aptitude and Difficulty, it was advocated for the Post Hoc test of least squares difference (LSD). The results of such test revealed that there were statistically significant scores in all the comparisons (p = 0.000), except when comparing students from level B1 to B2-C1 level, indicating that when the participants were in these levels (B1 and B2-C1) their beliefs did not change concerning the variables (items) comprising the factor labeled as Learning Aptitude and Difficulty. For the sake of clarity it is recalled that the items shaping such factor are ten: 13 (En clase de inglés se puede recurrir al español), 31 (Es muy difícil aprender inglés en un país de habla hispana), 32 (El inglés es un idioma difícil de aprender), 33 (Para aprender inglés es importante una buena interrelación estudiante – docente), 42 (Para aprender inglés se necesita de un tutor o profesor *),* 43 (Las personas mayores de edad presentan mayor dificultad para aprender inglés), 45 (La pronunciación del inglés es difícil de aprender), 46 (Para aprender inglés es necesario estudiarlo de manera presencial), 51 (Los ejercicios de

repetición favorecen el aprendizaje del inglés), and 53 (El aprendizaje del inglés se le facilita más a unas personas que a otras).

Based on these results it may be thought that when greater control of the target language (English) is achieved, the beliefs concerning Learning Aptitude and Difficulty are stabilized. Likewise, these results constitute evidence of construct validity of the COBALTALI, to the extent that proves to be sensitive to changes in the perception of the difficulty of learning English as a foreign language as greater control is acquired to the learning of such language.

In addition to this analysis, a two-way ANOVA analysis was performed in order to explore the combined effects of the English level and gender concerning the factor labeled as Learning Aptitude and Difficulty. In other words, the means of the two English level and gender independent variables (hence the name two-way) were compared in order to explore how they affect the dependent variable (Learning Aptitude and Difficulty).

The results of this two-way ANOVA analysis, which was intended to understand whether there is an interaction between the two independent variables on the dependent variable, revealed effects of interaction [F (1) = 432.006, p = 0.000]. The effects are described in Table 42 and in Figure 4.

Table 42. Descriptive statistics differentiated by the gender and English level variables on the factor labeled as Learning Aptitude and Difficulty

Gender	English Level	N	Mean	Std. Deviation
Male	A1	98	20,90	5,150
	A2	99	22,25	4,803
	B1	59	25,66	5,425
	B2-C1	16	27,50	3,899
Female	A1	111	21,14	4,675
	A2	104	23,41	4,808
	B1	46	25,70	4,728
	B2-C1	16	25,38	3,160
Total	A1	209	21,03	4,893
	A2	203	22,85	4,829
	B1	105	25,68	5,107
	B2-C1	32	26,44	3,654

The results of this two-way ANOVA analysis are illustrated in Figure 4, in which the interaction effects between gender variable and English level variable on the scale of Learning Aptitude and Difficulty can be observed.

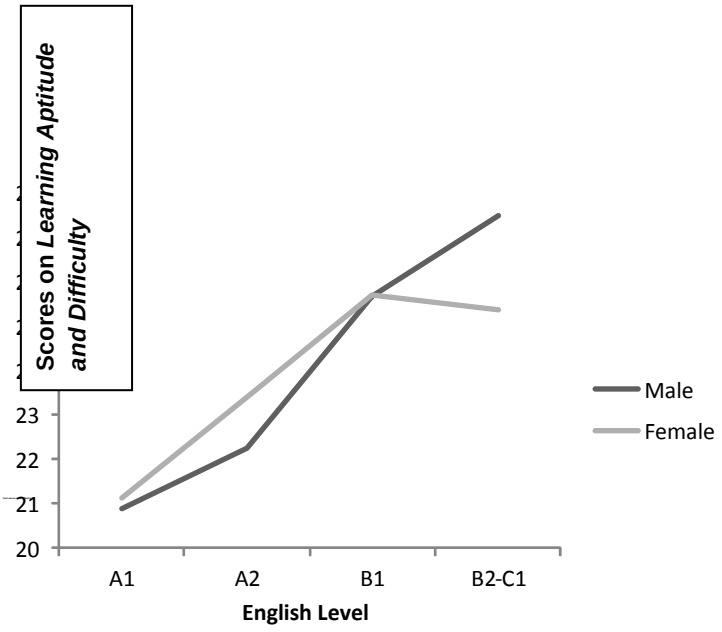

Figure 4. Interaction effects between gender variable and English level variable on the Learning Aptitude and Difficulty scale

As can be seen in Table 42 and in Figure 4, there exists a combined effect of the English level and gender variables on the factor labeled as Learning Aptitude and Difficulty. This effect indicates that by increasing the level of English proficiency, the learners tend to perceive that English language learning process is easier (and therefore decreases the perceived difficulty), but in women this only happens until they reach the B1 level, because over the B2-C1 level no changes occur in women. In other words, when women, unlike men, reach B2-C1 their trend of perceiving English language learning as an easy process starts losing strength. For example, when students are in an A1 level they are likely to "strongly agree" or "agree" with the belief that *"*el inglés es un idioma difícil de aprender*"* (item 32), or with the belief that "la pronunciación del inglés es difícil de aprender" (item 45) but when they reach a higher English level, for instance B1, they are likely to "disagree" or "strongly disagree" with these belief-statements. These findings will be discussed in the next chapter.

5.5.3 Results related to the socioeconomic stratum variable

The results presented in the previous section dealt with comparison of means according to the English level variable. Following this line of analysis, the present section focuses on the results pertaining to a comparison of means of the four domains extracted through factor analyses, according to the

socioeconomic stratum variable. For this purpose, it was again advocated for one-way ANOVA analysis, which is intended to determine whether the means are statistically different.

Before focusing on the results, it should be noted that although the sample for this analysis consisted of 563 participants there were 16 subjects (2,84% of the sample) who did not report their socioeconomic stratum and therefore these 16 subjects were not taken into account for this analysis. That is, the sample for this analysis consisted of 547 participants (out of 563). Likewise, it is worth noting that the socioeconomic stratum reported by these 547 participants ranged from 1 to 5, being 1 the lowest socioeconomic stratum and 5 the highest socioeconomic stratum, respectively. More concretely, 2,49% of the students belonged to socioeconomic stratum 1 (Low-low); 36,23% to socioeconomic stratum 2 (Under); 51,69% to socioeconomic stratum 3 (Medium-Low*)*, 6,39% to socioeconomic stratum 4 (Low*)*, and 0,36% to socioeconomic stratum 5 (Medium-High*)*.

The results of this one-way ANOVA analysis revealed no significant differences in any factor ($p > 0.05$). It is recalled that if the obtained *p* value (or Sig.) is less than the critical value of alpha (α), which was set at .05, then the effect is said to be significant. The results of this hypothesis testing are presented in Table 43.

Table 43. Results pertaining one-way ANOVA analysis on the socioeconomic stratum variable

Factor	Socioeconomic Strata	N	Mean	Std. Deviation	F	Sig.
Teaching Methods/Approaches	1	14	29,14	6,163	0,255	0,907
	2	204	30,31	6,252		
	3	291	29,98	6,703		
	4	36	30,22	7,314		
	5	2	33,00	2,828		
Learning Strategies and Activities	1	14	27,14	5,869	0,280	0,891
	2	204	28,19	5,588		
	3	291	28,22	6,733		
	4	36	28,19	6,857		
	5	2	32,00	8,485		
Learning Aptitude and Difficulty	1	14	23,14	4,487	0,794	0,529
	2	204	22,47	5,426		
	3	291	23,15	5,089		
	4	36	23,42	5,005		
	5	2	26,00	1,414		
Teacher's role/ profile	1	14	13,50	2,955	0,937	0,442
	2	204	14,12	3,713		
	3	291	13,53	3,668		
	4	36	13,31	4,020		
	5	2	14,50	4,950		

As can be seen in table 43, the *p* value (or Sig. value) obtained in each factor was higher than the critical value of alpha (α), which was set at .05. In the factor labeled as Teaching Methods/Approaches it was 0,907; in the factor labeled as Learning Strategies and Activities such value was 0,891; in the Learning Aptitude and Difficulty factor it was 0,529; and in the Teacher's Role/ Profile factor that *p* value was 0,442. Since those *p* values were higher than .05 it can be said that the independent variable of this analysis (socioeconomic stratum) did not represent any (statistical significance) effect on those four factors.

Having presented these results, concerning the comparison of means of the four domains extracted through factor analyses, according to the socioeconomic stratum variable, in the next section it is proceeded to report the results related to a comparison of means of the four domains extracted through factor analyses, according to the age variable.

5.5.4 Results related to the age variable

The previous three sections of this document were devoted to present the results concerning the comparisons of means according to three variables: gender, English level, and socioeconomic stratum. This section is conceived to present the results about a comparison of means of the four domains extracted through factor analyses, according to the age variable.

Before moving to the results, it is pertinent to note that although the sample for the description of students' beliefs consisted of 563 participants there were 4 subjects who did not report their age and therefore these 4 subjects were not taken into account for this analysis. That is, the sample for this analysis consisted of 559 participants (out of 563). Additionally, it is worth noting that 250 participants were in the range of 16-19 years (44,40% of the sample); 201 were in the range of 20-23 years (35,70%); 70 students were in the range of 24-27 (12,43%); 24 students were in the range of 28-31 years (4,26%); 7

participants were in the range of 32-35 years (1,24%); 3 students were in the range of 36-39 years (0,53%); 2 subjects were in the range of 40-43 years (0,36%); and 2 students were older than 43 years (0,36%). Overall, their ages concentrated on a range of 16-23 years, with a mean age of 20.9 years.

Along with this, it is also important to note that the analysis performed dealt with correlations between age and each of the four factors extracted through factor analysis (Teaching Methods/Approaches, Learning Strategies and Activities, Learning Aptitude and Difficulty, and Teacher's Role/Profile) through Pearson's correlation coefficient.

The results of this analysis revealed that there was not a correlation between the age variable and the four factors under analysis - $p < 0,05$ - (see Table 44).

Table 44. Results of Pearson correlations between empirical scales and age

Factor	*r* de Pearson
Teaching Methods/Approaches	0,092*
Learning Strategies and Activities	-0,076
Learning Aptitude and Difficulty	-0,032
Teacher's Role/ Profile	0,028

*$p < 0,05$

For a better understanding of the results presented in Table 44, it is noted that Pearson correlation, whose symbol is "*r*", is a measure of the "strength of the

association" or "linear relationship" between two variables. Pearson's *r*, can range from -1 to 1; an *r* of -1 indicates a perfect negative linear relationship between variables, an *r* of 0 indicates no linear relationship between variables, and an *r* of 1 indicates a perfect positive linear relationship between variables. Note that a high correlation is when the *r* is .5 to 1.0 or -0.5 to 1.0; a medium correlation is when the *r* is .3 to .5 or -0.3 to .5; a low correlation is when the *r* is .1 to .3 or -0.1 to -0.3. Given that the Pearson's *r* in the factor labeled as Teaching Methods/Approaches was 0,092; in the factor labeled as Learning Strategies and Activities was -0,076; in the factor labeled as Learning Aptitude and Difficulty was -0,032; and in the factor labeled as Teacher's Role/ Profile was 0,028 it can be said that the age variable does not perform a significant effect on the factors under analysis.

These results are the last set of findings based on the exploratory and confirmatory factor analyses performed to the data pertaining to the COBALTALI testing. Space to discuss the results reported so far is provided in the next chapter.

SECTION- E SUMMARY

This fifth section of the chapter has addressed the results related to the examination of the extent the variables of gender, English level, socioeconomic stratum, and age affect learners' beliefs about English language teaching and

learning, based on the four factors previously extracted through statistical procedures. In turn, these results aimed at providing answers to the four last research question of the study: Does gender affect Colombian learners' beliefs about English language teaching and learning?, Does English level affect Colombian learners' beliefs about English language teaching and learning?, Does socioeconomic stratum affect Colombian learners' beliefs about English language teaching and learning? Does age affect Colombian learners' beliefs about English language teaching and learning?

As for the **age variable**, the results obtained with the performance of the *Student's t test* to the four factors extracted empirically, evidenced, in all the cases, homoscedasticity (equality of variance between groups), indicating that the male and female participants held almost the same English language learning beliefs comprising the four factors under study.

With regard to the **English level variable**, the results that emerged from the performance of a one-way ANOVA analysis evidenced that there were only significant differences in the factor labeled as Learning Aptitude and Difficulty [F (3) = 27.527, p = 0.000]. In view of these results, it was subsequently performed a Post Hoc test of least squares difference (LSD) intended to establish between which pairs of English levels there were significant differences in the factor labeled as Learning aptitude and difficulty. The results

of this analysis revealed that there were statistically significant scores in all the comparisons ($p = 0.000$), except when comparing students from level B1 to B2-C1 level, indicating that as the English level is increased, the perception of English language difficulty tends to decrease (learners tend strongly disagree with the items shaping such factor), however, when the participants reach B1 and B2-C1 levels their beliefs did not change concerning the variables (items) comprising the factor labeled as Learning Aptitude and Difficulty. These results suggested that when greater control of the target language (English) is achieved, the beliefs concerning Learning Aptitude and Difficulty are stabilized.

Additionally, in order to explore the combined effects of the **English level** and **gender** concerning the factor labeled as Learning Aptitude and Difficulty it was performed a two-way ANOVA analysis. The results of this analysis revealed that there exists a combined effect of the English level and gender variables on the factor labeled as Learning Aptitude and Difficulty. This effect indicates that as male students are increasing their level of English proficiency, that is when they are going through A1, A2, B1, and B2-C1, their beliefs on the degree of English language difficulty tend to decrease (tend to strongly disagree), but in female students this only happens until they reach the B1 level, because over the B2-C1 level their beliefs on the degree of English language difficulty tend to stabilize (no changes occur in women's beliefs).

In regard to the **socioeconomic stratum variable**, it was performed a one-way ANOVA analysis to the data corresponding to four factors under question. The results of such analysis revealed no significant differences in any factor ($p > 0.05$). In other words, the *p* value (or Sig. value) obtained with the one-way ANOVA analysis in each factor was higher than the critical value of alpha (α), which was set at .05, indicating that the independent variable of this analysis (socioeconomic stratum) did not represent any (statistical significance) effect on those four factors.

With respect to the last variable under examination, the **age variable**, the results that emerged from the performance of the Pearson's correlation coefficient to the data revealed that that there was not a correlation between the age variable and the four factors under analysis ($p < 0, 05$). Concretely, the Pearson's *r* in the factor labeled as Teaching Methods/Approaches was 0,092; in the factor labeled as Learning Strategies and Activities was -0,076; in the factor labeled as Learning Aptitude and Difficulty was -0,032; and in the factor labeled as Teacher's Role/ Profile was 0,028, which indicated that age variable did not perform any (statistically) significant effect on the factors under analysis.

As it has been repetitively pointed out, space to discuss all the results reported in this chapter will be provided in the next chapter.

CHAPTER SUMMARY

This chapter has been devoted to report the results of the study. To do this report the chapter was divided into five sections: Section A, the Development of the COBALTALI**;** Section B, Participants' Belief Description Stage; Section C, Results of the COBALTALI Dimensionality through a Quantitative Approach -Factor Analysis-; Section D, Results of the COBALTALI Reliability through a Quantitative Approach -Factor Analysis; and Section E, Results on the gender, English level, socioeconomic stratum, and age variables. Section A was dedicated to report the results related to the development of the COBALTALI; Section B was centered on reporting the results pertaining to the description of the beliefs Colombian university students of English, who are pursuing different university programs, hold about English language teaching and learning; Section C was focused on presenting the results concerning the identification, through a qualitative framework of the dimensions, subscales or facets, of language learning beliefs that the COBALTALI address through its comprising item-beliefs; Section D was devoted to report the results in regards the reliability properties of the COBALTALI, estimated through factor analysis; and Section E was conceived to present the results related to the examination of the extent the variables of gender, English level, socioeconomic stratum, and age affect learners' beliefs about English language teaching and learning, based on the four factors extracted through statistical procedures.

For the sake of avoiding repetition, given that each section of this chapter presented a summary of the results addressed throughout such sections, it is simply pointed out that all the ten research questions posed to guide this study were addressed through the sets of results reported in this chapter. Thereby, these sets of results have aimed at the threefold purpose of this study: 1) to develop and validate an inventory that can be used to examine beliefs Colombian university students hold about English language teaching and learning; not only the students who participated here but from other regions of Colombia 2) to describe the beliefs Colombian university students of English, who are pursuing different university programs, hold about English language teaching and learning; and 3) to determine whether gender, English level, socioeconomic stratum and age variables affect these learners' beliefs about English language teaching and learning.

After having reported the results of this study, it is time to move to the next chapter, which is devoted to present a discussion of what has been reported in this chapter.

FIFTH PART:

Discussion

CHAPTER 6. DISCUSSION

CHAPTER OVERVIEW

The previous chapter focused on reporting the findings of the study, through which the ten research questions of the dissertation were addressed. This chapter has the mission of discussing the findings of the study by means of a dialogue between the evidence accumulated from the results and the ideas which form the conceptual underpinning of the study. This discussion will turn around the three main objectives of the study and the research questions posed to guide it.

The chapter, taking the research questions of the dissertation as the axes of the discussion, presents the following structure. In the next section, 6.1, the results related to the validity evidence of the COBALTALI are discussed in the light of the conceptual underpinning of construct validity in research instruments, which deals with the first research question. This is followed in section 6.2 by a discussion of the dimensions of language learning beliefs identified in the COBALTALI from qualitative framework, which concerns the second research question of the study. The next section, section 6.3, again the discussion deals with the dimensions of language learning beliefs identified in the COBALTALI but this time it is from a quantitative framework: factor analysis. In section 6.4 the discussion has to do with the reliability evidence

estimated in the COBALTALI according to the dimensions of language learning beliefs identified in the COBALTALI from a qualitative approach, which corresponds to the obtained answers to the fourth research question. The following section, section 6.5, is devoted to discuss the findings related to reliability evidence estimated in the COBALTALI according to the dimensions of language learning beliefs identified in the COBALTALI from a quantitative approach (factor analysis). Subsequently, section 6.6 focuses on discussing a set of findings that is of paramount importance in the study and that deals with the sixth research question: the beliefs held by university students who were learning English as a foreign language in Colombia about English language teaching and learning. Section 6.7 presents the discussion of the findings related to the extent the gender variable affected the Colombian learners' beliefs about English language teaching and learning, and section 6.8 follows this line of discussion to address the results related to the effect of English level variable on the Colombian learners' beliefs about English language teaching and learning. The chapter closes with two more sections, 6.9 and 6.10 in which the results related to the effect of other two variables on the Colombian learners' beliefs about English language teaching and learning are discussed: the socioeconomic stratum variable (6.7) and the age variable (6.8). The last four sections mentioned above deal with the last four research questions of the study.

6.1. RESEARCH QUESTION 1: Does the target instrument – COBALTALI – show evidence of validity?

This research question deals with the content validity properties of the target language belief inventory, referred to as COBALTALI, developed in this study. It is pertinent to remind that content validity deals with the extent to which a sample of items, comprising a measuring instrument, adequately constitute an operational definition of a construct addressed by the instrument. In essence, the content validity properties of this inventory were estimated in order to judge the soundness or quality of the results that this instrument can yield.

The answer to this question somewhat entails a demonstration of the extent to which the development of the COBALTALI was in accordance with the procedures research instrument literature considers as appropriate to design valid instruments. On this vein, the answer to this question demands a report of all the methodological procedures that were undertaken to accumulate evidence of the construct validity of the target research instrument.

The first aspect that deserves to be mentioned is that for the development of the COBALTALI strict construct validity procedures were followed, widely used by research instrument developers in social sciences and, thus, important evidence was gathered that indicated that the COBALTALI exhibited adequate

construct validity properties. Part of these strict procedures were the six stages of the Initial Developmental Phase (the Core Domain Identification Stage, the Belief-Statements Generation Stage, the Belief-Statements Depuration Stage, the Expert Panel Review Stage, the Initial Content Validity Stage, and the Instrument Readability Assessment Stage) that were undertaken to generate high quality items to shape the COBALTALI. All these methodological stages, through which the items were progressively improved in their wording by means of expert judgment procedures, drove to finally count on valid items for the COBALTALI. In essence, the results of the abovementioned stages suggested that the items generated to comprise the COBALTALI were appropriate to measure what this instrument purports to measure: Colombian learners' beliefs about English language teaching and learning. Another part of these strict construct validity procedures was the General Instrument Assessment Stage, designed to assess and thus refine, by means of an expert panel, each part of the preliminary COBALTALI format version. In essence, the results of this stage indicated that all the sections shaping the COBALTALI format version exhibited appropriate qualities that make this instrument a construct valid research tool.

But apart from highlighting both that there is a body of evidence accumulated throughout the stages shaping the Initial Developmental Phase that indicate that the target instrument –COBALTALI – show evidence of validity, and that such evidence was gathered by means of rigorous construct validity

procedures, other aspects deserve to be discussed in regards to how the answer to this first research question was reached.

As for the Belief-Statements Generation Stage three aspects should be discussed: the participants involved in the item generation process, the instrument employed to generate the items for the intended instrument, and the items selected to comprise the intended instrument.

To begin with, the survey administered for the generation of potential items to comprise the intended instrument was fruitful because with that survey it was possible to collect a substantial number of "raw" beliefs (a total of 2,556). This survey was designed by the researcher. Furthermore, it is important to note that to generate these items instead of drawing on literature review (deductive approach, Hinkin, 1998) it was opted to survey a segment of the population to which the instrument was intended to be administered (inductive approach, Hinkin, 1998). This "inductive" procedure was adopted because the researcher assumed that in order to capture the most latent beliefs Colombian students held about language learning and teaching, which is one of the main objective of this study, the best way was to directly survey a sample of Colombian university students about such beliefs.

As for the participants in the item generation process, it is important to observe that this study counted on a relatively considerable number of informants: a sample of 249 university students from 4 universities located in Bogota. This

number of participants may be seen as a reliable source of information to reflect the most latent beliefs Colombian students hold about language learning and teaching. A foundation of this view is the substantial number of raw beliefs (a total of 2,556) reported by the informants in this stage.

In regards to the subsequent stage, the Belief-Statements Depuration Stage, an aspect that deserves to be commented is that this stage can be taken as a crucial step to start accumulating construct validity evidence of the COBALTALI. A great deal of the development of the items to shape the COBALTALI depended on the results from this stage. It consisted in a process of depuration, discard and semantic synthesis of the 2,556 “raw beliefs” reported in the previous stage. Put simply, this process was undertaken by the researcher to turn the 2,556 “raw beliefs” reported in the previous stage into suitable belief-items to develop the COBALTALI, and thus seek item content validity. As a result of this process 72 provisory items were generated from the 2,556 reported raw beliefs. It is worth recalling that the researcher worded that provisory set of items considering the following group of seven rules Dörnyei (2003) points out in item wording: 1) aim for short and simple items; 2) use simple and natural languages; 3) avoid ambiguous or loaded words and sentences; 4) avoid negative constructions; 5) avoid double-barreled questions; 6) avoid items that are likely to be answered the same way by everybody; and 7) include both positively and negatively worded items (p.52-56).

With respect to the next stage, the Expert Panel Review Stage, an aspect that cannot be overlooked in this discussion is that this stage was designed to maximize item content validity. Thereby, the results of this stage are also taken as accumulated evidence of the COBALTALI construct validity. It is recalled that in this stage the researcher decided to assess his item synthesis work, performed in the previous stage, through an expert panel review. This procedure specifically aimed at assessing the technical quality of the provisional instrument items. This expert review process was useful to refine the target instrument because based on this expert panel judgment (comprised by 3 experts in Applied Linguistics and English Education), it was possible to identify and delete seven fussy, ambiguous or irrelevant items (see Table 14).

Additionally, it is worth noting that this procedure of assessing the technical quality of the instrument items has theoretical grounds. The theory underlying this methodological procedure involves what is commonly known as content validity, which, in words of Haynes (1995), is “the degree to which elements of an assessment instrument are relevant to and representative of the targeted construct for a particular assessment purpose” (p.2). Since specialists in content validity have underlined that the technical quality of test items can affect the content validity properties of an assessment instrument (Anastasi, 1976; Brown, 1976; Standards for educational and psychological testing, 1985; Lynn, 1986; Nunnally & Bernstein, 1994), this stage consisted in providing evidence of the technical quality of the instrument items.

Overall, it can be said that the Initial Developmental Phase constituted an important refinement instance for the technical quality of the provisional instrument items intended to comprise the target instrument (COBALTALI). Furthermore, the results obtained with this expert panel judgment, in turns, have served as input to immediately refine the COBALTALI and thus undertake the subsequent phase of this study.

Now, in regards to the Initial Content Validity Stage it is worth pointing out that this step is part of the attempts to present evidence of the COBALTALI construct validity, specifically of the item content validity. For the sake of clarity, it is pertinent to recall that this stage aimed at assessing both items' representativeness to the construct under investigation (language learning beliefs) and items' cultural sensitivity issues through an expert panel and Sustantive Agreement Index (SAI). The expert judgment revealed that only nine items (out of 65) exhibited a low degree of representativeness to the construct under investigation (see Table 16), and that none of the items exhibited cultural sensitivity.

From the above two points deserve discussion. The first point is related to the fact that, although the expert judgment revealed that nine items lacked representativeness to the construct under investigation (see Table 16), it was expected that all of the 65 items exhibit a high degree of representativeness because the items under examination emerged from a considerable number of university students who reported such items as their most latent and prominent

beliefs about English language learning and teaching. The researcher agreed on this expert judgment, after analyzing these items and noting that they held a "general semantic scope", which could drive to ambiguity or confusion when operating them in the study. Under consideration of the results of the expert judgment, the aforementioned analysis made by the researcher, and the possibility of yielding a research instrument with fewer items, it was decided to discard these items. On this, it should be noted that the researcher advocates the idea that a survey or questionnaire with more than 60 items might affect the respondent' motivation to deal with a survey, and thus the answers may be lack of quality.

Secondly, the term cultural sensitivity should be tackled with caution in this methodological stage because its scope is wide (see Reynolds, Lowe, & Saenz, 1999) and in this part of the study it was taken in the narrowest sense: it was operationalized to simply identify whether the target items presented demeaning or offensive language content to one or more groups or to any particular racial and ethnic groups, or whether there was any item that could exhibit any wording complexity that may affect its understanding by any member or group of respondents. Furthermore, this aspect of the instrument was assessed because in the city where the COBALTALI was administered, Bogota, there are different groups of people from different regions in the country, with their own customs, cultures and traditions, and an item with sensitive wording for any of those groups could affect the data aimed to be

collected. Therefore, caution should be taken when interpreting the properties of the instrument under the concepts of cultural sensitivity.

As for the subsequent stage, the Instrument Readability Assessment Stage, it can be said that this methodological procedure contributed to refine the target instrument (COBALTALI) and thus maximizes its construct validity. By virtue of clarity it should be recalled that this stage was undertaken to assess the clarity and readability properties of the 56 remaining items, so far, intended to comprise the new instrument through an expert panel's assessment. The results revealed that minor changes had to be performed in the wording of four items. These results also revealed that, for the sake of technical quality of the instrument items, the conversion of one item into two items was necessary (see Table 18). These changes were performed to the instrument and a new fifty-seven-item version of the COBALTALI was developed.

Overall, this methodological procedure was another attempt in this study to provide evidence of content validity related to the technical quality of the instrument items. This procedure is widely recommended in guidelines (Standards for educational and psychological testing, 1985; Lynn, 1986; Dörnyei, 2003) by scale developers for multiple reasons, among them, because if there is item redundancy, content validity and dimensionality of an instrument is affected (Netemeyer et al., 2003).

On the subject of the General Instrument Feasibility Assessment Stage, it is highlighted that this methodological procedure was conceived as another attempt to provide construct validity evidence of the COBALTALI. It is recalled that the mission in this stage was to assess, by means of an expert panel, each part of the preliminary COBALTALI format version. This assessment revealed satisfactory results: the preliminary version of the COBALTALI exhibited a high degree of clarity and precision in the wording of the instruction, a high degree of appropriateness in the scaling technique, and a high degree of practicality in format of the items (see Appendix F). This assessment supported validity evidence of one of the four aspects of content validity, appropriateness of the test development process (Sireci, 1998), which in words of Sireci and Faulkner-Bond (2014) “refers to all processes used when constructing a test to ensure that test content faithfully and fully represents the construct intended to be measured and does not measure irrelevant material” (p. 101). Likewise, this assessment allowed the researcher to proceed to test the instrument with the certainty of having a relatively tuned version of the COBALTALI.

The aforementioned results not only constitute cumulative evidence of one of the different spectrums of the content validity properties of the novel instrument (appropriateness of the test development process) but also provide evidence to support potential inferences from the test scores.

From the comments presented above on the results related to the first research question of the study, it could be said, as a way to close this part of the discussion, that there is plenty of cumulative evidence indicating that the COBALTALI has the required characteristics to measure what is purports to measure (language learning beliefs) and therefore it can yield valid results. On this vein, it can be said, based on the results commented above, that the content of the COBALTALI is congruent with its testing purposes.

6.2. RESEARCH QUESTION 2: What dimensions of language learning beliefs, according to expert judgment, does the instrument – COBALTALI – focus on?

This research question deals with the dimensionality of the proposed 57-item COBALTALI, as well as the third research question of the study does. Before moving towardss the results it should be pointed out that the answer to this research question stems from an underlying fact: the multidimensional nature of language learning beliefs. In this respect it is pertinent to highlight that beliefs about language learning, as it was pointed out in chapter 2, are viewed as a multidimensional construct (Sakui & Gaies, 1999; Horwitz, 1987; Kim, 2012). For example, Horwitz's (1987) study on language beliefs dealt with five dimensions or themes of this construct: foreign language aptitude, the difficulty of language learning, the nature of language learning, learning and communication strategies, and motivation and expectations. Accordingly, most

of the inventories, surveys or questionnaires developed to study language learning beliefs delineate the dimensions they deal with (Horwitz, 1987; Mori, 1999; Sakui & Gaies).

Additionally, it should be underlined that it is of paramount importance to identify the dimensionality in a measuring instrument when the interest, as it is the case of this study, is to develop a research instrument that can yield valid results. The rationale of this asseveration is that determining the dimensionality of a research instrument maximizes its validity. As such, when in the COBALTALI it is determined not only the core construct to be measured or examined (language learning beliefs) but also the dimensions of such core construct, its validity is enhanced. It is recalled that validity is concerned with the extent to which an instrument measures what it is intended to measure.

The results related to the target reseach question (2) emerged from an expert judgment, which was issued through a Substantive Agreement Index (SAI). It may be pertinent to recall that to design the SAI the researcher reviewed the retained 57 items to shape the COBALTALI as well as the relevant literature on language learning beliefs, especially literature related to language learning belief instruments. Through this review, the researcher identified six dimensions of language learning beliefs which the 57 items shaping the COBALTALI might deal with: Learning Context, Teacher's Role/ Profile, Motivation and Expectations, Learning Strategies and Activities, Teaching Methods/Approaches, and Learning Aptitude and Difficulty. Based on these six

identified dimensions, a five- expert panel was asked either to assign each item to one of the six dimensions posed by the researcher (SAI model) or suggest a new domain if it was pertinent.

As for the answer to this research question, the results revealed that 3 items (item 1, 8 and 46) pertain specifically to the domain labeled as Learning Context; 6 items (item 21, 33, 35, 49, 54, and 57) to the domain labeled as Teacher's Role/ Profile; 6 items (7, 16, 25, 26, 38, and 52) to the domain labeled as Motivation and Expectations; 15 items (item 2, 3, 9, 10, 18, 20, 24, 27, 28, 34, 37, 44, 50, 51, and 56) to the domain labeled as Learning Strategies and Activities; 18 items (item 4, 5, 6, 11, 12, 13, 14, 17, 22, 23, 29, 30, 39, 40, 41, 47, 48, and 55) to the domain labeled as Teaching Methods/Approaches; and 5 items (item 31, 32, 43, 45, and 53) to the domain labeled as Learning Aptitude and Difficulty. The expert judgment also revealed that four items did not fix in any of the posed domains: items 15, 19, 36, and 42. These four items were not excluded from the COBALTALI because the SAI was not taken as a criterion to discard items from the inventory.

Some aspects of these findings deserve to be discussed, one of them has to do with the multidimensional structure of language learning beliefs, and the others have to do with the dimensions that were identified through expert judgment.

These findings attest to the multidimensional structure of language learning beliefs. Therefore, separation of language learning beliefs into different themes or dimensions can be a suitable step when studying and interpreting them. Thus, the research results show that six dimensions, facets or spectrums of language learning beliefs can be described with the items shaping the COBALTALI: Learning Context, Teacher's Role/ Profile, Motivation and Expectations, Learning Strategies and Activities, Teaching Methods/Approaches, and Learning Aptitude and Difficulty.

As for the first dimension of language learning beliefs identified in the COBALTALI, Learning Context (LC), the literature review suggests that LC figures prominently in the field of second and foreign language (L2) education (Long, 1997). It also indicates that LC, which in words of Figueiredo (2005) is "the set of circumstances that are relevant when someone needs to learn something" (pag.128), has been viewed in L2 from different perspectives and has not been deprived from debate. One of the foremost of these has been the elucidation of SL and FL learning contexts. However, although substantial attempts have been undertaken to understand the different spectrums of L2 learning context, numerous challenges remain in attempting to understand the beliefs students hold about L2 learning context.

For the sake of clarity, it is reminded that the dimension labeled as Learning Context was found to be shaped, based on the results of the expert judgment by the items 1 (Para aprender inglés es necesario hacerlo en un país de habla

inglesa), 8 (Aprender inglés es más fácil si se hace desde niño), and 46 (Para aprender inglés es necesario estudiarlo de manera presencial). Evidently, these items are related to the favorability of learning English in an English speaking country (item 1), the ease of learning English at an early age (item 8), and the importance of learning English in person (face-to-face).

Moreover, given that the dimension labeled as Learning Context was shaped by only three items, whereas the other five dimensions were shaped by at least five items, it is reasonable to think that there is a limit to what the COBALTALI can tell us on this facet of language learning beliefs. Therefore, potential users of the COBALTALI should consider it when interpreting their findings on this dimension and corroborate whether there are more items in this instrument that can assess this dimension. As for other language belief instruments, the phenomenon of shaping a dimension with only three (or even two) items is rather common. Rieger (2009), for example, conducted a study with a modified Hungarian version of Horwitz's (1987) BALLI (Beliefs About Language Learning Inventory) and through principal component analysis she shaped the component labeled as *Importance of practice with authentic materials* with three items (27, 36, and 37) and the component with the heading *Difficulty* with two items (item 4 and 35).

In regards to the second domain, Teacher's Role/Profile, the theoretical framework for this study evidenced that language teachers perform different roles in their pedagogical and didactic duties including "facilitator", "advisor",

“mentor”, “helper”, “learning promoter”, and “counselor” (Mozzon-McPherson, 2001; Richards & Rodgers, 1986; Voller, 1997). In this theoretical framework it was also observed that there is a widely accepted idea that teachers’ roles highly influence learners’ motivation (Dörnyei, 1994; Kikuchi, 2009; Tanaka, 2005). Likewise, the literature reviewed suggested that the teacher’s profile is an elusive concept which is often viewed as a brief summary of teachers’ skills, qualifications, strengths, and key experiences. Thereby, attempts to elucidate what a teacher’s profile is in different contexts, as this study is attempting to do with the variables defining this construct in Colombia, can be seen as a valuable contribution for the language education field.

By virtue of practicality, it is recalled that the dimension labeled as Teacher’s Role/ Profile in the COBALTALI was found to be composed of the items 21 (Los profesores de inglés deben ser de un país de habla inglesa), 33 (Para aprender inglés es importante una buena interrelación estudiante – docente), 35 (Es importante que el docente de inglés haya estado en un país de habla inglesa), 49 (La exigencia por parte del docente al estudiante es importante para el aprendizaje del inglés), 54 (Un profesor de inglés debe corregir al estudiante en el momento que sea necesario), and 57 (Es importante que el docente enseñe al estudiante cómo aprender).

In observing the items comprising the dimension labeled as Teacher’s Role/ Profile in the COBALTALI it could be said that item 21 is related to teacher’s profile, item 33 is related to teacher’s socio-affective skills, item 35 concerns

teacher's subject matter knowledge, item 49 deals with teacher's roles towardss the student, item 54 has to do with the tearcher's roles when students make mistakes, and item 57 relates to the teacher's facilitator role of "teaching how to learn". Based on these results it can also be said that the items comprising this domain encompass aspects of teachers' roles and profiles concerning teachers' socio-affective skills, teachers' subject matter knowledge, and teachers' role towardss the student.

Additionally, when revising prominent or well-known research instruments on language learners' beliefs it is observed that none of them addresses the domain or theme Teacher's Role/ Profile in such instruments. For example, the most widely used research instrument in the subject of language learners' beliefs, Horwitz's (1987) *Beliefs About Language Learning Inventory* (BALLI), does not deal with a dimension semantically close to the domain under question here (*Teacher's Role/ Profile*). In fact, according to Horwitz (1987), the themes addressed by the BALLI concern foreign language aptitude, the difficulty of language learning, the nature of language learning, learning and communication strategies, and motivation and expectations. In turn, Bacon and Finnemann's (1990) questionnaire, which consisted of 109 statements assessing students' beliefs was divided into two themes: (1) use of authentic texts in the language classroom; and (2) approach to language learning. Mori´s (1999) language learning questionnaire, which contained 92 items (as cited in Kuntz, 1996) consisted of six factors (based on factor analysis), which did not have directly to do with *Teacher's Role/ Profile*. Likewise, Sakui and Gaies'

(1999) instrument, highly based on existing instruments, does not deal with Teacher's role/ profile domains. They, by means of a principal components exploratory factor analysis, grouped 25 of the 45 items comprising the instrument into four groups (or factors): 1) "Beliefs about a contemporary (communicative) orientation to learning English", 2) "Beliefs about a traditional orientation to learning English", 3) "Beliefs about the quality and sufficiency of classroom instruction for learning English", and 4) "Beliefs about foreign language aptitude and difficulty". A possible explanation for the lack of existing instruments that deal with the domain under consideration (Teacher's Role/ Profile) can be found in the words of Nikitina and Furuoka (2006) when she evokes the critics that have been raised towardss the Horwitz' BALLI validity. In words of Nikitina and Furuoka (2006) "statements dealing with learners' beliefs were generated by language teachers, not by learners themselves… themes under which students' beliefs are organized in Horwitz's inventory were not generated statistically from students' responses, and the choice of those themes and their labeling were never explained" (p. 211). Indeed, the majority of the items comprising the existing language belief instruments, most of them widely based on the items of Horwitz's (1987) BALLI, were generated by teachers and instrument developers in attempts to depict the beliefs students hold and not by actually students' data on their language beliefs. In view of this situation, the lack of existing instruments that deal with the domain under consideration (Teacher's Role/ Profile) limits a potential comparative analysis of the results obtained in this study. In turn, this fact lends importance to the

development of the COBALTALI because with this instrument other unexplored dimensions of language learning beliefs can be explored.

Moving towardss the results concerning the Motivation and Expectations dimension, it seems pertinent to point out that this subcategory of language learning beliefs was found to be comprised, based on the results of expert judgment by the items 7 (Para aprender inglés se necesita de interés/actitud para lograrlo), 16 (Es importante aprender inglés), 25 (Es mejor el inglés británico que el americano), 26 (Es más importante la pronunciación que el acento), 38 (El profesor de inglés debe motivar a sus estudiantes a aprender ese idioma), and 52 (Cuando se quiere aprender inglés se puede).

In examining the items shaping this dimension it can be said that two of those items (items 7 and 52) are related to attitudes towardss the act of learning the language, item 16 (Es importante aprender inglés) may be seen as an “open” item in the sense that it does not provide enough information to conclude whether it aims at intrinsic or extrinsic motivation (Vallerand, 1997), item 25 (Es mejor el inglés británico que el americano) reflects attitude towards the language, which could subsume intrinsic or extrinsic rewards, and item 38 concerns attitudes towardss the L2 teacher, specifically to the teaching style Additionally, as for item 26 (Es más importante la pronunciación que el acento), it presumably refers to the importance of learning the correct articulation (diction or production) of the different sounds of the English

language in contrast with the importance of learning about one of the different suprasegmental aspects of speech: accent. It is reminded that as the process undertaken to generate the items for the COBALTALI took on a static, cross-sectional view of student beliefs, in which the students reported (without providing an in-depth explanation) what they considered as the most prominent existing beliefs on English language learning and teaching through belief-statements, it was impossible to inquire what they really meant with their reported belief-statements.

Furthermore, from a contrastive perspective, it is interesting to note that although the 34-item BALLI, the most widely used research instrument in the subject of language learners' beliefs, and the COBALTALI contain a dimension with the same label (Motivation and Expectations), there is only one item that holds a direct (semantic) resemblance: "People in my country feel that it is important to speak English*"* (item comprising the BALLI), with "Es importante aprender ingles" (COBALTALI). The other items comprising this dimension in the BALLI are four: "I would like to learn English so that I can get to know Americans better", "If I learn English very well, I will have better opportunities for a good job", *"*I want to learn to speak English well*",* and *"*I would like to have American friends". Again, a possible explanation to this fact can be found in the different procedures performed in these two instruments to generate their items. Whereas the statements for the COBALTALI's items were generated by Colombian university learners of English, it is said that the statements for the BALLI were generated by 25 language teachers in Texas (Nikitina and

Furuoka, 2006). Additionally, it should be kept in mind that the BALLI was developed nearly 30 years ago to gather the opinions of students learning French, German and Spanish at the University of Texas at Austin. From this commented fact, it may be reasonable to think that the COBALTALI is a more sensitive instrument to the actual Colombian context than the BALLI is and therefore this local instrument can yield more valid results. Likewise, this fact may suggest that the COBALTALI offers the possibility of exploring other characteristics of the language learning beliefs, related to motivation and expectation issues, which cannot be explored with the other existing language belief instruments. Last but not least, it can be said that the COBALTALI is dealing with some subcategories of language learning beliefs that are elusive or difficult to define. They seem to be quite related; to such an extent that it is difficult to determine what variables characterize them. For example, the COBALTALI deals with the topic of motivation in language learning, which, as Gardner (2007, p. 10) points out, is “a very complex phenomenon with many facets”. Gardner (2007), who is probably the scholar who has analyzed most extensively motivation and its effects on second language acquisition, states that motivation, in the field of second and foreign language education, cannot be measured by one scale (domain or category) or even by three or four scales. Given that motivation is a “hybrid”, “multifaceted” concept, which has been studied from different frameworks, “describing its nature and its core features requires particular care” (Dörnyei, 2009, p. 118).

As regards the fourth dimension, Learning Strategies and Activities, it is worth briefly noting that this domain was found to be shaped, based on the results of the expert judgment by the items 2 (Escuchar música en inglés favorece el aprendizaje de la lengua inglesa), 3 (En clase de inglés se debe enfatizar en el aprendizaje de vocabulario), 9 (Para aprender inglés es necesario dedicarle tiempo todos, o casi todos, los días), 10 (Para aprender inglés es necesario practicar la habilidad de escucha), 18 (Para aprender inglés es importante hacer ejercicios de lecturas en inglés), 20 (Para aprender inglés es necesario interactuar con personas cuya lengua nativa es el inglés), 24 (Para aprender inglés es importante realizar trabajos extra clase), 27(Realizar ejercicios de traducción favorece el aprendizaje del inglés), 28 (En clase de inglés es importante realizar ejercicios de escritura), 34 (Para aprender inglés es necesario pensar en inglés), 37 (Los cursos de inglés por internet son recursos valiosos para apoyar el aprendizaje del inglés), 44 (Si no se practica el inglés se olvida), 50 (Las actividades competitivas en clase estimulan el interés del estudiante por el aprendizaje del inglés), 51(Los ejercicios de repetición favorecen el aprendizaje del inglés), and 56 (Cantar en inglés favorece el aprendizaje del inglés).

Thus, these items were related to listen-to-English music activities (item 2), the importance of learning vocabulary (item 3), learning-dedication (item 9), reading exercises (item 18), conversation with native speakers (item 20), writing exercises (28), extra-class work (item 24), thinking-in- English exercises (item 34), internet resources (item 37), target language practices (item 44),

competition activities (item 50), repetition activities (item 51), and singing-in English activities (item 56).

Additionally, it is interesting to observe that although in the most popular learner belief instruments in the field - Horwitz's (1987) BALLI - there is a group of items (eight items) grouped into the theme Learning and Communication Strategies, which seems to be highly related to the domain Learning Strategies and Activities, only one item comprising the theme Learning and Communication Strategies (Horwitz's BALLI) is semantically related to one of the items contained in the domain labeled as Learning Strategies and Activities: item 18 of BALLI (It is important to repeat and practice a lot) is related to the item 51 of this inventory (Los ejercicios de repetición favorecen el aprendizaje del inglés). Again, a point to consider in this regard is the fact that the statements of the BALLI, dealing with learners' beliefs, were generated by language teachers (Horwitz, 1987) whereas the items comprising the target instrument (COBALTALI) were generated by university students in the role of English language learners. Indeed, most of the research instruments that have been developed to assess language learners' beliefs have not drawn on the direct respondents (the students), unlike in this study, to generate the items intended to comprise such instruments. This fact evidences part of the uniqueness of this study, which highlights the importance of developing the present research instrument (the COBALTALI) as it can address other (unexplored) "spectrums" or facets of the Learning strategies and activities domain that an instrument such as the BALLI does not explore.

Last but not least, as regards the Learning Strategies and Activities dimension, it is worth noting that literature on language learning strategies (LLS) evidences a proliferation of attempts by scholars and researchers to classify LLS (Cohen, 2000; Dansereau, 1985; O'Malley & Chamot, 1990; Oxford, 1990; Rubin, 1987; Wenden, 1983). According to Oxford (1990) the exact number of strategies that exist is unknown, as well as the way they should be defined, demarcated, and categorized. In turn, Liu (2010) asserts that "although considerable headway has undoubtedly been made, LLS classification systems clearly need further development and standardization" (2010, p.104).

From the literature outlined above, it is quite notable that although important attempts have been undertaken to classify LLS and gain insight on them, the need for valid and reliable instruments to assess LLS, as the one that is intended to be developed in this study, still persists. Note that in Colombia the volume of research focused on exploring, classifying, and demarcating the learning strategies and activities (or language learning strategies) university students draw on in the English learning process is scarce, as it is pointed out by Schulz (2001). This scarcity may be due to the lack of context-sensitive instruments to study such phenomenon. On this matter, as will be discussed below, the current study's contribution to the literature on language learning strategies is reflected on the empirical data evidencing that the surveyed Colombian university students hold strong preferences for listen-to-English music activities, learning vocabulary, learning-dedication time, reading and

writing exercises, thinking-in- English exercises, internet resources, target language practices, competition activities, repetition activities, and singing-in English activities in order to learn English. Besides, since this study is intended to provide a research instrument, with technical quality and psychometric standards, to explore and demarcate beliefs university students hold about English language teaching and learning, including those pertaining to learning strategies and activities, this study, in turn, can be seen as an important contribution to university English language education in Colombia.

Moving on to the dimension labeled as Teaching Methods/Approaches, the literature reviewed indicated that this construct, in the field of language education, may be defined in general terms as a consistent set of teaching procedures that define the practice of language teaching (Anthony, 1963).

For the sake of clarity, it is recalled that the results that emerged from the expert judgment revealed that the dimension labeled as Teaching Methods/Approaches was shaped by the items 4 (Las actividades audiovisuales son importantes para el aprendizaje del inglés), 5 (La enseñanza del inglés debe ser didáctica),6 (Para el aprendizaje del inglés es importante la enseñanza explícita de la gramática), 11 (Las clases de inglés deben basarse en interacciones habladas o diálogos), 12 (En clase de inglés se debe hablar un 100% en inglés), 13 (En clase de inglés se puede recurrir al español), 14 (El profesor de inglés debe enfatizar mucho en la pronunciación), 17(La enseñanza del inglés debe ser lúdica), 22 (Cuanto más personalizada

sea la clase de inglés, más se aprende), 23 (La enseñanza del inglés debería estar centrada en situaciones cotidianas), 29 (Se debe enseñar tanto inglés americano como británico), 30 (En clase se debería enfatizar más en el desarrollo de la habilidad de habla y escucha), 39 (La enseñanza del inglés debe ser más práctica que teórica), 40 (Se debería procurar en que el alumno desarrolle fluidez en el idioma inglés), 41 (Se deben innovar las metodologías para la enseñanza del inglés), 47 (En clase de inglés se debería hacer más énfasis en la habilidad de habla), 48 (En clase de inglés las actividades orales en grupo facilitan el aprendizaje), and 55 (En clase de inglés es más importante hacer énfasis en la habilidad de habla que en la gramática).

As can be seen, these items were related to the importance of audiovisual aids for language instruction (item 4), didactic classes (item 5), explicit teaching of grammar (item 6), spoken interactions or dialogues in class (item 11), instruction 100% in English (item 12), Spanish (or L1) in the English learning process (item 13), pronunciation emphasis (item 14), ludic-recreational classes (item 17), personalized classes (item 22), centered-in- everyday-situation classes (item 23), American and British English-type classes (item 29), speaking and listening skills (item 30), based-on-practice classes (item 39), fluency skill (item 40), innovative methodologies (item 41), speaking skill activities (item 47), oral exercises in group (item 48), and speaking skill in contrast to grammar (item 55) in order to learn English.

Interestingly, this dimension (Teaching Methods/Approaches), with 18 items, surpasses the number of items that the other five dimensions contain. This fact may suggest that a wide spectrum of language learning beliefs on language teaching methods and approaches can be examined with the Teaching Method/Approaches dimension of the COBALTALI. Furthermore, given that the items shaping the COBALTALI were generated on the basis of the information provided by a substantial number of Colombian university English language learners (249 participants), it can be said that Colombian English language learners are more concerned about beliefs related to English teaching methods than about other dimensions of language learning beliefs. Overall, it suggests that Teaching Methods/Approaches is a multi-faceted dimension of language learning beliefs.

As regards the last dimension, Learning Aptitude and Difficulty, first, it may be pertinent to highlight that Uribe (2009) refers to foreign language aptitude as a cognitive capacity for learning a foreign language which is characterized by being located, situational, componential and stable. In turn, learning difficulty is seen, in broad terms, as something that impedes learning well and soon. Also note that, although learning aptitude may be seen as the antonym of learning difficulty, these two terms are seen as a unit in this COBALTALI dimensionality assessment: the results of the expert judgment revealed that the COBALTALI addressed a dimension of language learning belief that can be labeled as Learning Aptitude and Difficulty. It seems reasonable to address learning aptitude and learning difficulty as a unit in this dimensionality assessment

because only five statements were found to comprise this domain. In view of practicality, it is recalled that this dimension was shaped by the items 31 (Es muy difícil aprender inglés en un país de habla hispana), 32 (El inglés es un idioma difícil de aprender), 43 (Las personas mayores de edad presentan mayor dificultad para aprender inglés), 45 (La pronunciación del inglés es difícil de aprender), and 53 (El aprendizaje del inglés se le facilita más a unas personas que a otras).

As can be seen, the five items that, according to expert judgment, comprise the Learning Aptitude and Difficulty domain relate to the degree of difficulty of learning English in a Spanish speaking country, a perception of English in terms of the ease to learn it and to learn its pronunciation, the role that age plays when learning English, and the ability that some learners, unlike others, hold to learn English.

Interestingly, in the most popular instrument in language learners' beliefs - the BALLI-, Horwitz (1987) takes these two terms separately, that is, she labels a group of items as Foreign Language Aptitude, and another group as Difficulty of Language Learning. When examining the items shaping the Learning Aptitude and Difficulty (COBALTALI) and the items comprising the BALLI is it noticed that the latter contains three items that bear resemblance with the former. Item 31 of the COBALTALI (Es muy difícil aprender inglés en un país de habla hispana) holds resemblance with item 12 of the BALLI (It is best to learn English in an English-speaking country) but in the BALLI this item shapes

the theme with the heading The Nature of Language Learning. Item 43 of the COBALTALI (Las personas mayores de edad presentan mayor dificultad para aprender inglés) is highly related to item 1 of the BALLI (It is easier for children than adults to learn a foreign language), however, in the BALLI such item conforms the Foreign Language Aptitude theme. Item 32 of the COBALTALI (El inglés es un idioma difícil de aprender) shows resemblance with item 4 of the BALLI (English is: a) a very difficult language, b) a difficult language, c) a language of medium difficulty, d) an easy language, e) a very easy language)), but such item comprises the Difficulty of Language Learning theme. The above reinforces what had already been previously pointed out: there are some subcategories or dimensions of language learning beliefs that are quite interrelated, to such an extent that they tend to be elusive or difficult to define.

Finally, in view of the fact that results of the expert judgment revealed that there were four items that did not fix in any of the six dimensions identified as comprising the COBALTALI (items 15, 19, 36, and 42), further endeavors are suggested to assess the dimensionality of those items. These items correspond to the following beliefs: “para aprender inglés es necesario contar con diversos recursos o materiales de clase (libros, Cds, ayudas audiovisuales, ayudas tecnológicas, etc.)”, “para aprender inglés es necesario saber acerca de los países de habla inglesa, “la enseñanza del inglés se debería integrar en la enseñanza de otras asignaturas”, and “para aprender inglés se necesita de un tutor o profesor”. To the researcher’s knowledge, there is no other language belief instrument shaped by items related to the last

two items abovementioned (36 and 42), which contributes to the uniqueness of the COBALTALI. However, in the Horwitz's (1987) BALLI there is an item that bears resemblance with item 19 of the COBALTALI, which shapes the *nature of language learning* theme*:* It is necessary to know about English-speaking cultures in order to speak English. Sakui and Gaies' language belief instrument also contains an item that bears resemblance with item 15 of the COBALTALI: "listening to tapes and watching English programs on television are very important in learning English", which, based on factor analysis, shapes the factor labeled as *Beliefs about a contemporary (communicative) orientation to learning English.* It is recalled that these results emerged from a qualitative framework (expert judgment), and that the dimensional structure of the COBALTALI is addressed in this dissertation from a quantitative framework (factor analysis) as well.

Furthermore, from a research perspective, L2 researchers and instructors can use the 57-item COBALTALI, including the four aforementioned "unclassified four items", if they are interested in gaining insights into what these four beliefs entail, as it was done in this study. Indeed, knowing English learners' perception with regard to these four "unclassified items" can help identify a better pedagogical practice. For example, if through the administration of the COBALTALI to a group of English language learners it is evidenced that such learners hold the belief that "para aprender inglés es necesario saber acerca de los países de habla inglesa" or the belief that "la enseñanza del inglés se debería integrar en la enseñanza de otras asignaturas", probably an English

instructor of those learners would feel more confident about including information related to English-speaking countries in the class or drawing on content based instruction to satisfy learners' expectations.

In sum, the results related to the second research question of the study – What dimensions of language learning beliefs, according to expert judgment, does the instrument – COBALTALI – focus on? – revealed that the items shaping the COBALTALI deal with six dimensions, facets, themes or spectrums of language learning beliefs: Learning Context, Teacher's Role/ Profile, Motivation and Expectations, Learning Strategies and Activities, Teaching Methods/Approaches, and Learning Aptitude and Difficulty. These results, emerged from expert judgment, also revealed that four items (15, 19, 36 and 42) did not fix in any of the abovementioned domains. Although the dimensionality of these items was not identified, they were not excluded from the COBALTALI because this analysis was not taken as a criterion to discard items from the target instrument.

6.3. RESEARCH QUESTION 3: What dimensions of language learning beliefs, can be identified through factor analysis, in the beliefs about English language teaching and learning reported by Colombian university students?

This research question concerns the exploration of patterns, through factor analysis, in the subjects' responses with the administration of the developed 57-item COBALTALI. In other words, it deals with an identification of dimensionality of the subjects' responses from a quantitative approach (factor analysis). In order to help gain a better understanding to the answers obtained to this question, before addressing the results six key aspects are highlighted.

First, it is recalled that one of the procedures to demonstrate construct validity in a research instrument is to provide evidences of its dimensionality. Construct validity is one of the most important criteria (or standard) to judge the soundness of quality of research instruments.

Second, it is highlighted that in social science there are two widely accepted frameworks to define research instruments dimensionality: a qualitative approach (expert judgment or researchers' logically-derived categories) and quantitative approach (factor analysis). In broad terms, the findings derived from these two frameworks are used develop the definition of what is to be measured. However, whereas the findings of expert judgment on instrument dimensionality derive from content analysis of the instrument (in this case before the administration of the instrument) the findings emerged through factor analysis derive from the subjects' responses, after administering the target instrument. As regards language belief questionnaires, it is not common to undertake both frameworks to examine their dimensionality. For example, the dimensionality of the most widely used questionnaire on learners' beliefs,

Horwiz's (1987) BALLI, was not generated statistically from students' responses but it was presumably determined through an a priori process. Indeed, the choice of the five themes shaping the BALLI and their labeling were never explained.

Third, as for the COBALTALI, for the sake of maximizing its construct validity, its dimensionality was determined through two frameworks: a qualitative approach (expert judgment) and quantitative approach (factor analysis).

Fourth, it is reminded that the findings that emerged from the expert judgment revealed that the COBALTALI addresses six dimensions or spectrums of language learning beliefs: Learning Context, Teacher's Role/Profile, Motivation and Expectations, Learning Strategies and Activities, Teaching Methods/Approaches, and Learning Aptitude and Difficulty.

Fifth, in this study it was opted for factor analysis, which is a group of statistical techniques, to quantitatively explore or deduce the underlying structure (dimensions or factors) of the participants' belief responses. Factor analysis, aiming at investigating patterns in the subjects' responses, is the most popular and extensively employed statistical tool in psychological and educational research to assess the dimensionality of a research instrument.

Sixth, given that factor analysis is a group of statistical procedures, the answer obtained to the target research question emerged from the sum of the following

statistical analysis: 1) the set of results obtained by running Principal Axis Factoring (PAF), 2) the set of results that concerned an analysis of the proportion of variance (shared by each item with the factor), 3) the set of results related to an examination of sampling adequacy for the adopted factor solution through the Meyer-Olkin (KMO) measure of sampling adequacy, and the Bartlett's Test of Sphericity, 4) The set of results obtained with Principal Axis Factor analysis with Promax rotation, in order to assess the underlying structure for the items comprising the resulting factor solution, 5) the set of results pertaining to the labeling process of the final extracted factors, and, finally, 6) the set of results of the analysis of correlations among empirical factors with the Pearson Correlation Coefficient. The six sets of results that emerged from these statistical analyses correspond to the two main sets of factor analysis techniques: Exploratory Factor Analysis (EFA) and Confirmatory Factor Analysis (CFA).

After these key clarifications, the spotlight is then turned to the answer obtained to the target research question. The findings on this issue revealed that the participants' responses on 51 variables (items), out of 57, can be appropriately interpreted with a four factor solution. That is, the respondents' answers in regards to the items comprising the COBALTALI, with the exception of items 7, 25, 26, 27, 37, and 55, can be grouped into four factors (dimensions or underlying structures). Items 7 (Para aprender inglés se necesita de interés/actitud para lograrlo) 25 (Es mejor el inglés británico que el Americano), 26 (Es más importante la pronunciación que el acento), 27

(Realizar ejercicios de traducción favorece el aprendizaje del inglés), 37 (Los cursos de inglés por internet son recursos valiosos para apoyar el aprendizaje del inglés), and 55 (En clase de inglés es más importante hacer énfasis en la habilidad de habla que en la gramática) were discarded from this factorial solution because they showed no favorable factor loadings, that is, they showed the lowest discrimination ability. Factor 1, labeled as Teaching Methods/Approaches, consisted of 18 items (also referred to as variables); Factor 2, named as Learning Strategies and Activities, was formed by 17 items; Factor 3, identified as Learning Aptitude and Difficulty, was shaped 10 items, and Factor 4, labeled as Teacher's Role/ Profile, was comprised by 6 variables.

The variables shaping the first factor (Teaching Methods/Approaches) deal with the teaching principles and procedures that define the class instruction. Under this factor there are items that address the importance of listening to English language songs (item 2), learning vocabulary, audiovisual activities, explicit instruction of grammar, pronunciation, competition and group activities, teacher exigency, and the four macro communicative skills (speaking, listening, reading, and writing) in the English classroom instruction. The variables forming the second factor (Learning Strategies and Activities) are related to specific actions and strategies that make language learning easier, faster, and more effective. Some of the aspects that address the variables of this second factor are the importance of a ludic, didactic, practical, personalized, communicative and innovative instruction. Other aspects are the usefulness of

starting the English learning process in an early age, thinking in English, showing discipline in the learning process, assigning extra class work and working on daily communicative situations to learn English effectively. The items shaping the third factor (Learning Aptitude and Difficulty) address some aspects of the English language that turn out to be difficult for the learners and some learning conditions that facilitate and hamper the learning process. The variables comprising the fourth factor (Teacher's Role/ Profile) deal with some roles or tasks that are expected to be performed by the English teachers as they are carrying out their class instruction. From these findings some aspects are discussed in the following lines.

To begin with, this set of findings, in addition to lending more support to the proposition that language learning beliefs are multidimensional, show that dimensionality in a language research instrument can vary depending on the approach employed for that purpose. While the findings that emerged from the expert judgment (before administering the instrument) revealed that the COBALTALI addressed six dimensions of language learning beliefs (Learning Context, Teacher's Role/ Profile, Motivation and Expectations, Learning Strategies and Activities, Teaching Methods/Approaches, and Learning Aptitude and Difficulty), the findings from the factor analysis, based on the participants' responses, indicated that this language belief instrument dealt with four dimensions of language learning beliefs, or rather that the participants' responses showed four factors (Teaching Methods/Approaches, Learning Strategies and Activities, Learning Aptitude and Difficulty, Teacher's

role/ profile). A likely explanation for the contrasting findings from these two approaches is the distinct dynamic of dimensionality assessment involved between these two approaches. Whereas the findings obtained through factor analysis obeyed to a balance between parsimony (a factorial solution with relatively few factors) and plausibility (a factorial solution with enough factors to adequately account for correlations among measured variables), the findings through expert judgment were not subjected to reach such balance. Put another way, the primary concern for the experts to perform the assessment of the COBALTALI dimensionality was to identify such dimensionality on the basis of semantic analysis of the items, not on the parameters of parsimony and plausibility. Furthermore, it should be kept in mind that the findings obtained through factor analysis emerged from the respondents' beliefs gathered with the administration of the COBALTALI and the findings obtained through expert judgment emerged from the items comprising such instrument.

Moreover, when observing these findings in the light of other studies, it is noted that this phenomenon has previously been reported: the findings on dimensionality in a language research instrument can vary depending on the framework used for that assessment. For example, whereas Horwitz (1987) stated, based on a non-statistical analysis, that her 34-statement foreign language BALLI addressed five themes of language learning beliefs (foreign language aptitude, the difficulty of language learning, the nature of language learning, learning and communication strategies, and motivation and expectations), Yang (1992) identified four factors (dimensions extracted

through factor analysis) as a result of the principal component and factor analysis performed to the data provided by 505 English language students, which was gathered with the 34-statement foreign language BALLI. The factors in Yang's study were identified as follows: (1) existence of self-efficacy and positive expectations of learning outcome (BALLI statements number 4, 6, 12, 15, 18, and 33); (2) high value of learning English (number 7, 9, 11, 17, 27, 30, and 34); (3) endorsement of foreign language aptitude (number 2, 8, 10, 22, 29, 31, and 32); and (4) priority to formal, structured study (number 16, 19, 20, 24, 26, and 28).

Additionally, the findings of the COBALTALI dimensionality through factor analysis revealed that there were six items with no favorable factor loadings (or items with the lowest discrimination ability) to be included in one of the four extracted factors (items 7, 25, 26, 27, 37 and 55), and therefore they were discarded from that factorial solution. Likewise, the findings of the COBALTALI dimensionality through expert judgment also revealed that there were four items (items 15, 19, 36, and 42) with no (semantic) correspondence to be included in one of the six dimensions identified through this qualitative approach. Note that in the expert judgment process in this study an item was regarded as pertaining to a dimension if and only if the sixty percent of the expert panelists (three of them) concluded that such item corresponded to the dimension under analysis. Interestingly, items 7 (Para aprender inglés se necesita de interés/actitud para lograrlo), 25 (Es mejor el inglés británico que el Americano) and 26 (Es más importante la pronunciación que el acento),

which were discarded in the four factor solution, were considered as comprising the dimension identified as *Motivation and Expectations* according to the findings that emerged through the expert judgment. A plausible explanation to this finding is that these three items (7, 25, and 26) do measure a different aspect of language learning beliefs deduced from the four factor solution: Motivation and Expectations. Thereby, this finding supports the indication emerged from the expert judgment that the COBALTALI does measure language learning beliefs related to *Motivation and Expectation* issues. As for the items 27 (Realizar ejercicios de traducción favorece el aprendizaje del inglés) and 37 (Los cursos de inglés por internet son recursos valiosos para apoyar el aprendizaje del inglés) it is also interesting to observe that they were discarded as shaping the factor identified as Learning Strategies and Activities but they were considered as belonging to that dimension by the expert judgment. An aspect to keep in mind when interpreting these findings is that the dimensions of language learning beliefs deduced from factor analysis emerged from an empirical process, the beliefs reported by the participants, whereas the dimensions identified through expert judgment emerged from an a priori analysis, the semantic analysis of the items comprising the COBALTALI. Besides, it should be kept in mind that factor analysis is a method used to reduce the many variables (items) to a more manageable number (factors). In factor analysis each factor (pattern in participants' responses) captures a certain (not all) amount of the overall variance (not all the variance) in the observed variables (items). The factors that explain the least amount of variance are generally discarded. On this vein, the findings pertaining to items

27 and 37 imply that regardless of having been discarded as shaping the factor labeled as Learning Strategies and Activities, there are qualitative evidences (expert judgment) indicating that these items deal with such domain of language learning belief. Furthermore, the findings related to item 55 (En clase de inglés es más importante hacer énfasis en la habilidad de habla que en la gramática), which was excluded in the four factor solution, but was identified as comprising the dimension labeled as Teaching Methods/Approaches according to the findings that emerged through the expert judgment, induce a similar comment. That is, based on the qualitative evidences (expert judgment) provided in this study, this item can confidently be regarded as a belief that shapes the dimension of language learning beliefs labeled as Teaching Methods/Approaches. Regardless of this, further empirical inquires on the dimensional structure of the COBALTALI are required to make firm conclusions on these "controversial items".

The findings regarding items 15, 19, 36, and 42 also deserve to be commented. To begin with, it is recalled that these items were discarded as shaping the six dimensions of language learning beliefs identified through expert judgment but were included in one of the four factors deduced through factor analysis. According to the factor analysis performed to the students' responses item 15 (Para aprender inglés es necesario contar con diversos recursos o materiales de clase (libros, Cds, ayudas audiovisuales, ayudas tecnológicas, etc.)) shapes the factor labeled as Teaching Methods/Approaches, item 19 (Para aprender inglés es necesario saber

acerca de los países de habla inglesa) is part of the factor identified as Teacher's Role/ Profile, item 36 (La enseñanza del inglés se debería integrar en la enseñanza de otras asignaturas) corresponds to the factor with the heading Learning Strategies and Activities, and item 42 (Para aprender inglés se necesita de un tutor o profesor) belongs to the factor labeled as Learning Aptitude and Difficulty. It should be noted that the deduction or extraction of these factors was based on the results emerged from the different statistical procedures performed to students' responses (exploratory and confirmatory factor analysis), especially those yielded by the performance of Principal Axis Factor analysis with Promax rotation. Interestingly, in analyzing in detail these findings one might confidently agree that items 15, 36 and 42 highly correspond to the labels of the factors. However, when observing that the item 19 was regarded as shaping the factor identified as Teacher's Role/ Profile the degree of agreement may vary. One might claim that this item holds a stronger semantic relationship with Teaching Methods/Approaches or even with Learning Strategies and Activities than with the assigned factor. This fact proves the complexity of the structure of language learning beliefs. Moreover, it lends support to the proposition that culture and ethnicity play a role in shaping students' beliefs and that there are some language belief dimensions that appear to overlap, as it is pointed out by Nikitina and Furuoka (2006). This, in turns, raises the need for further research dedicated to explore and corroborate the findings of this study on the COBALTALI dimensionality.

All in all, the results related to the third research question of the study – What dimensions of language learning beliefs, can be identified through factor analysis, in the beliefs about English language teaching and learning reported by Colombian university students? – revealed that the participants' responses, their beliefs about English language teaching and learning, presented four patterns or underlying structures – four-factor solution – which in practical terms are dimensions referred to as factors in factor analysis. In other words, the participants' responses can be adequately interpreted through four factors. After a researcher's semantic analysis of the items shaping each factor, he decided to label Factor 1 (with 18 items) as Teaching Methods/Approaches, Factor 2 (with 17 items) as Learning Strategies and Activities, Factor 3 (with 10 items) as Learning Aptitude and Difficulty, and Factor 4 (with 6 items) as Teacher's Role/ Profile. These results, which emerged from exploratory and confirmatory factor analyses, also revealed that six items (7, 25, 26, 27, 37, and 55,) did not fit in this four-factorial solution because they showed no favorable factor loadings (poor discrimination ability). Although these six items did not shape any of the four factors abovementioned, they were not excluded from the COBALTALI.

6.4. RESEARCH QUESTION 4: What evidence of reliability does the target instrument – COBALTALI – show according to the dimensions of language learning beliefs identified through expert judgment?

The answer obtained to this research question concerns the evidences gathered on the COBALTALI internal consistency and stability reliability based on the six dimensions identified through expert judgment. In order to facilitate the understanding of the answers obtained to this question, before commenting the results some key aspects are addressed.

To begin with, it is recalled, as it was pointed out in chapter 3, that *reliability* is widely assumed by psychometricians and developers of measuring research instrument as a standard or quality criterion of quantitative research in scale development, which refers to the degree to which a measurement instrument produces consistent (internal consistency reliability) and stable (stability reliability) results. Hence, reliability, which concerns the degree to which a measuring instrument (including surveys, tests, questionnaires or inventories) produces stable and consistent results, is a fundamental psychometric property that scale developers expect their instruments to show, and therefore it is also expected with the COBALTALI. As pointed out in chapter 3, internal consistency reliability refers to how well the items on the survey, test, questionnaire or inventory that are proposed to measure the same construct or idea produce similar or consistent results. In turn, stability reliability refers to the consistency of respondents' scores or responses when a test or questionnaire is administered to the same respondents on two different occasions. Consistently, the assessment of the COBALTALI reliability dealt with the aspects of internal consistency and stability reliability.

Furthermore, it is recalled that the data used for the analysis of the COBALTALI internal consistency reliability emerged from the administration of this instrument to 563 university students from six universities located in Bogotá (the same involved for the Participants' Belief Description Stage) and the data used for the analysis of the COBALTALI stability reliability emerged from the administration of this instrument on two occasions (test-retest process) to a sample of 29 undergraduate students. Bear in mind that, as Kimberlin and Winterstein (2008) note, "Stability of measurement, or test–retest reliability, is determined by administering a test at two different points in time to the same individuals and determining the correlation or strength of association of the two sets of scores" (p. 2277).

Having recalled the above, it is time to discuss the results that provided answer to the target question. As for the COBALTALI internal consistency reliability, the Cronbach's Alpha Index analysis, performed to the six dimensions or subscales that emerged a priori (through expert judgment) showed "acceptable" evidence of internal consistency reliability in two out of the six dimensions: Learning Strategies and Activities (with Cronbach's alpha values of 0,711) and Teaching Methods/Approaches (with Cronbach's alpha values of 0,752). The remaining four dimensions (Learning Aptitude and Difficulty, Motivation and Expectations, Teacher's Role/Profile, and Learning Context) showed "poor" evidence of internal consistency reliability (alpha values lower than .70.). These results indicate that each of the 15 items that comprise the Learning Strategies and Activities dimension of language learning beliefs

(items 2, 3, 9, 10, 18, 20, 24, 27, 28, 34, 37, 44, 50, 51, and 56) adequately correlates with each of the other items of this dimension, and in turn it demonstrates that these set of items do measure such construct (Learning Strategies and Activities). Likewise, these results also indicate that that each of the 18 items that shape the Teaching Methods/Approaches dimension of language learning beliefs (items 4, 5, 6, 11, 12, 13, 14, 17, 22, 23, 29, 30, 39, 40, 41, 47, 48, and 55) adequately correlates with each of the other items of this dimension. Conversely, these results indicate that there is a lack of internal consistency reliability (or interrelatedness) in the other four dimensions (Learning Aptitude and Difficulty, Motivation and Expectations, Teacher's Role/ Profile, and Learning Context).

A possible explanation to obtain low or "poor" alpha values in four of the six dimensions of the COBALTALI is that such dimensions are shaped by a relative small number of items (five items in the Learning Aptitude and Difficulty and in the Learning Context dimension and six items in the Teacher's Role/ Profile dimension and in the Motivation and Expectations dimension), whereas the other two dimensions (Learning Strategies and Activities and Teaching Methods/Approaches) contain a relatively big number of items (15 and 18 items respectively). This explanation stems from the fact that when there are dimensions in a questionnaire with unbalanced number of items, the Cronbach's alpha value increases as the number of items in the dimension (subscale) increases.

These findings are striking: they provide empirical evidences that Cronbach's alpha value is not a powerful determinant estimate of internal consistency reliability in multidimensional language belief instruments with dimensions shaped by very unbalanced number of items. Hence, it can be unrealistic to expect "acceptable" Cronbach's alpha values (.70 or higher is considered "acceptable") in a multidimensional instrument with very disproportionate number of items in such dimensions, as it is the case of the COBALTALI. Importantly, it does not mean to suggest that internal consistency has no utility. These findings rather suggest that caution should be exercised when estimating internal consistency reliability through Cronbach's alpha values in language belief instruments with dimensions shaped by a very unbalanced number of items.

After having commented on relevant aspects of the results regarding the estimate of internal consistency reliability of the COBALTALI, the spotlight is now on the results of the reliability analysis regarding the aspect of stability for the six dimensions that were identified a priori (expert judgment).

To begin with, it is pertinent to point out that this analysis aimed at determining whether the COBALTALI yields consistent scores by administering it repeatedly. It is worthy of note that stability in a measurement procedure is

seen as the agreement of measuring instruments over time. That is, when the same or similar scores are obtained by administering repeatedly the same test, after a reasonable time interval, with the same group of respondents (The Standards for Educational and Psychological Testing, 1985). A Test-retest correlation is usually performed to assess whether a measurement process yields consistent scores. Herein, the index to measure the correlation between the variables of the intended instrument was Spearman's rank correlation coefficient, which is a non-parametric measure (not based on parameterized families of probability distributions). It was opted for this index because it is suggested when the sample size for the test-retest is small and when the scores on scales do not present statistical normality.

The results of this analysis revealed that the COBALTALI presented evidence of stability reliability, according to the performance of a Correlation coefficient test-retest (Spearman ρ) for the six dimensions (often referred to as scales in this kind of analyses) which emerged a priori (see Table 23), with correlations higher than 0.68 in all the cases, being the Learning Aptitude and Difficulty dimension the most consistent (0.91,). Note that in test-retest stability a dimension or scale with correlations .50 or higher are good: test scores are consistent from one test administration to the next. Also, it is recalled that for this test-retest stability reliability analysis the sample was 29 participants and that the lapse between the two administrations of the instrument was four days.

The findings regarding the estimate of stability reliability of the COBALTALI based on the six dimensions identified through expert judgment met the hypothesized expectations. They indicated substantial agreement between participant responses on the six dimensions identified through expert judgment at the test-retest administrations of the COBALTALI in time 1 and in time 2. Thus, students' beliefs about English language learning and teaching did not change in the four day interval between administrations. These findings lend support to the proposition that language learning beliefs present relatively stable characteristics. Overall, these findings, indicating that the COBALTALI is an instrument that yield reliable scores over time, can be viewed as positive for potential users as this inventory is showing to be highly suited for widespread use in Colombian tertiary education.

On the whole, the results related to the fourth research question of the study – What evidence of reliability does the target instrument – COBALTALI – show according to the dimensions of language learning beliefs identified through expert judgment? – revealed "acceptable" evidence of internal consistency reliability in two of the six dimensions: Learning Strategies and Activities (with Cronbach's alpha values of 0,711) and Teaching Methods/Approaches (with Cronbach's alpha values of 0,752). The other four dimensions (Learning Aptitude and Difficulty, Motivation and Expectations, Teacher's Role/Profile, and Learning Context) presented "poor" evidence of internal consistency reliability (alpha values lower than .70.). A plausible explanation of why all the six dimensions of the COBALTALI did not show adequate evidence of internal

consistency reliability is that this multidimensional instrument contains dimensions with very disproportionate number of items.

As for the findings regarding the estimate of stability reliability of the COBALTALI, it was evidenced that the six dimensions under question presented adequate stability reliability estimate, according to the performance of a Correlation coefficient test-retest (Spearman ρ), with correlations higher than 0.68 in all the cases, being the Learning Aptitude and Difficulty dimension the most consistent (0.91). These findings indicate that the COBALTALI is an instrument that yields reliable scores over time.

6.5. RESEARCH QUESTION 5: What evidence of reliability does the target instrument – COBALTALI – show according to the factors emerged through factor analysis?

The answer gained to this research question pertains to the evidence gathered on the COBALTALI internal consistency and stability reliability based on the four dimensions (factors) deduced through exploratory and confirmatory factor analyses. Before discussing the results the following aspects may be relevant to keep in mind to facilitate the understanding of the findings.

To begin with, it is recalled that the findings of some factor analyses, which corresponded to Exploratory Factor Analysis (EFA) and Confirmatory Factor

Analysis (CFA), revealed that 51 items of the COBALTALI, out of 57, could be appropriately interpreted with a four factor solution. The first factor, labeled as Teaching Methods/Approaches, consisted of 18 items (2, 3, 4, 6, 14, 15, 18, 28, 29, 30, 38, 40, 47, 48, 49, 50, 56, 57); the second factor, named as Learning Strategies and Activities, was formed by 17 items (5, 8, 9, 10, 11, 16, 17, 22, 23, 24, 34, 36, 39, 41, 44, 52, 54); the third factor, identified as Learning Aptitude and Difficulty, was shaped 10 items (13, 31, 32, 33, 42, 43, 45, 46, 51, 5), and the fourth factor, labeled as Teacher's Role/Profile, was comprised by 6 items (1, 12, 19, 20, 21, 35). The labels for these four factors were given by the researcher, who took them from the six dimensions identified through expert judgment. For this factorial solution the items 7, 25, 26, 27, 37, and 55 were discarded because they showed no favorable factor loadings to be included in one of those four extracted factors. Additionally, it is reminded that the data used for this factor analysis corresponded to the respondents' beliefs gathered with the administration of the COBALTALI.

It may be pertinent to clarify that to address this research question the assessment of the COBALTALI reliability dealt with the aspects of internal consistency and stability reliability. Besides, note that this type of assessment was already performed, but to the six initial dimensions which emerged through expert judgment. Now, given that the details of what this type of assessment consists in were discussed earlier, it seems appropriate to focus straightaway on discussing the results.

As for the results of the reliability analysis regarding the aspect of internal consistency, it was found that the empirical four scales extracted with factor analysis demonstrated evidence of internal consistency reliability with Cronbach's alpha values ≥ .72, after the removal of item 12 (see Table 37). The removal of item 12 (En clase de inglés se debe hablar un 100% en inglés), which had been shaping the factor labeled as Teacher's and student's role/ profile, was performed because, besides presenting similar factor loadings (0.35) into two factors, it showed the lowest discrimination ability. These findings denote that the items shaping the extracted factors are correlated with one another inside the factor, and therefore they measure the same aspects of the domain of content (learners' beliefs about language learning). These results were quite satisfactory. They indicate that the set of items in each scale aims at measuring a common dimension. In turn, these findings demonstrate that the COBALTALI exhibits appropriate characteristics of construct validity. Indeed, a condition of good research instruments is that they measure what they are expected to measure.

As for the results of the reliability analysis regarding the aspect of stability, it was found that the empirical four dimensions extracted through factor analysis showed evidence of stability reliability through a Correlation coefficient test-retest (Spearman ρ), with correlations higher than 0.79 in all the cases (see Table 39), being the Learning Aptitude and Difficulty scale or dimension the most consistent (0.89). Again, these results were also quite satisfactory

because “positive” evidences of stability reliability (consist scores over time) are required in good measuring instruments.

Last but not least, from a contrastive perspective, these results revealed that the four factors under analysis, comprising the COBALTALI, yield more reliable scores concerning the aspect of internal consistency than the six dimensions of language learning beliefs identified through expert judgment. The following lines are devoted to discuss this finding.

At first glance, as discussed in a previous section, one might argue that the very unbalanced number of items comprising the six dimensions identified in the COBALTALI through expert judgment may have contributed to affecting internal consistency estimate in some dimensions. It should be noted, however, that even the factor with the smallest set of items (only five items), labeled as Teacher’s Role/Profile, also produced an adequate correlation coefficient alpha estimate (0,724). It does not mean to suggest that dimensions shaped by very unbalanced number of items cannot affect Cronbach’s alpha values on internal consistency reliability. In fact, the findings of this study revealed that the dimensions identified through expert judgment as well as the factors extracted through statistical indices that contained the highest number of items were found to exhibit the highest correlation coefficient alpha values. It rather suggests that along with this aspect there may be other circumstances affecting internal consistency reliability in the six

dimensions identified in the COBALTALI through expert judgment that should be explored.

Then, one would intuitively find an explanation to these findings of the study by examining the nature of the two employed approaches. The expert judgment results as well as the factor analytic results are inherently subjective in nature. The expert assessment on the COBALTALI dimensionality was based on each expert panelist' perception and interpretation of the items and themes provided to guide his judgment. Likewise, the numerous decisions regarding factor extraction, rotation and interpretation made in this study, as well as the outcomes, could have been differently made by another researcher. That is possibly why in observing related studies, the findings of this study are not unprecedented results. Truitt (1995), for example, despite having employed Horwitz's (1987) 34-statement foreign language beliefs BALLI to investigate the beliefs about language learning of 204 university students learning English as a Second Language (ESL) in Korea, found that each of the five factors that she deduced from factor analysis contained statements that had been placed in different themes by Horwitz. Furthermore, the labels used to identify the five factors extracted in Truitt's (1995) study did not coincide with the headings used by Horwitz to classify the items of her BALLI. The labels used in Truitt's (1995) study were *value and nature of learning English, self-efficacy/confidence in speaking, the importance of correctness/formal learning, ease of learning English,* and *motivation.* The labels used by Horwitz (1987) were *foreign language aptitude, the difficulty of language learning, the nature*

of language learning, learning and communication strategies, and *motivation and expectations.*

On this issue it may be pertinent to point out that there are scholars and researchers who are reluctant to advocate exclusive reliance on Cronbach's alpha values to estimate internal consistency reliability in a test or inventory (Tang, Cui, & Babenko, 2014; Hattie, 1985; McDonald, 1981). Part of such reluctance appears to lie in the proposition that alpha coefficient is more an indicator of item redundancy and narrowness of scale than an estimate of internal consistency reliability in a test or inventory. Tang, Cui, and Babenko (2014), for instance, after comparing six indices that are often used for assessing internal consistency, concluded that the employment of a single measure to assess internal consistency was not sufficient, and thereby they recommended a combination of measures for such purpose. Overall, these results along with the issues commented above may entice to wonder whether the low Cronbach's alpha values obtained in four of the six dimensions identified through expert judgment are firm indicators of the internal consistency reliability of such dimensions. Although the scope of this study does not permit to draw any firm conclusion on this, the assessment performed by the expert judgment provides evidence to think that the items comprising such dimensions do measure the constructs that they are intended to measure. In turn, these findings warrant further research to explore the internal consistency reliability of the COBALTALI. Most notably, the current study

represents an initial step in the process of producing a reliable and valid Colombian language belief inventory.

Herein, the results pertaining to the reliability analysis regarding the aspect of *internal consistency* and *stability* for the four factors obtained with factor analyses have been discussed. These results constituted evidence to answer the fifth research questions posed to guide this study: What evidence of reliability does the target instrument – COBALTALI – show according to the factors emerged through factor analysis? In sum, the results in regards to this fifth research question of the study revealed “adequate” evidence of internal consistency reliability in the four factors extracted through factor analysis, with Cronbach’s alpha values ≥ .72, after the removal of item 12 because it showed the lowest discrimination ability. The findings related to the aspect of stability reliability of the COBALTALI evidenced that the four factors under question presented adequate stability reliability estimate, with correlations higher than 0.79 in all the cases. The “positive” evidence of internal consistency reliability and stability reliability on the basis of the four factors should be taken as satisfactory results in view of the fact that such findings are expected in good measuring instruments.

6.6. RESEARCH QUESTION 6: What beliefs do university students who are learning English as a foreign language in Colombia hold about English language teaching and learning?

This question addresses the second main objective of this dissertation: the description of the beliefs Colombian university students of English hold about English language teaching and learning. Previous to the discussion of the results some relevant aspects regarding the sample and the instrument will be commented.

For this objective, the study involved a relatively considerable sample size (a nonrandom convenience sample of 563 university students). The sample was quite balanced in terms of gender (48,8% males and 51,2%females), and useful demographic information was obtained from the participants (socioeconomic stratum, English proficiency and age), which was required to examine the role of those variables in the study.

As for the instrument administered, the Colombian Beliefs about Language Learning and Teaching Inventory – COBALTALI –, two aspects deserve consideration: its technical qualities and the provenance of its items. In regard to the CO-BALTALI's technical qualities, it should be noted that this instrument, intended to be used to examine beliefs Colombian university students hold about English language teaching and learning, was grounded in distinguished

methodological frameworks and accepted guidelines for survey development (Anderson & Gerbing, 1991; Dörnyei, 2003; Hinkin, 1995, 1998; Lynn, 1986; Standards for educational and psychological testing, 1985). With the aim of generating valid and reliable data, notably, the COBALTALI was subjected to different and subsequent refinement procedures and assessment stages, including items' representativeness to the construct under investigation, items' cultural sensitivity, items' clarity and readability properties, technical quality of each section of the COBALTALI, and identification of the instrument dimensionality. These assessment stages are highly characterized by the use of expert panel's judgment, which aligns with best practices in the development of data-gathering instruments (Anderson & Gerbing, 1991; Dörnyei, 2003; Hinkin, 1995, 1998; Lynn, 1986; Standards for educational and psychological testing, 1985). Therefore, it can be said that the development of the COBALTALI was characterized by the incorporation of systematic and rigorous processes advocated by some distinguished scholars and researchers in scale development.

As for the provenance of the COBALTALI's items, it is worthwhile noting that the method used to generate the items was different from the methods that have been usually employed in most of the existing instruments on language learners' beliefs. The method to generate the items for the COBALTALI was the inductive approach (Hinkin, 1995, 1998). This approach, according to Hinkin (1998) is characterized by the use of a sample of respondents to generate such items. In contrast, the deductive approach refers to the process

in which the items are generated based on theoretical foundations or classification schemes or typologies available on the content of interest. In this regard, Hinkin's (1995) review of a sample of 75 studies, focused on the development of new research measures, published between the years of 1983 to 1993, revealed that most studies (83%) drew on deductive methods, 11% employed inductive approaches and 6% performed a combination of methods. Furthermore, in the most popular instrument in language learners' beliefs - the BALLI-, Horwitz (1987, 1988) drew on language teachers to generate the items for that instrument. The fact that the development of the items was drawn on students and not on typologies or language teachers is an aspect that contributes to make this project a unique work. In fact, this aspect of uniqueness drove to address other (unexplored) language learning beliefs dimensions, such as those related to what was called the Learning Context dimension, which cannot be explored with the BALLI or with other several existing instruments that have been developed with the BALLI as the main basis.

Now, it is time to discuss the results regarding the question on the participants' beliefs about English language learning and teaching. By virtue of comprehensibility, the discussion has the following structure. In the next section, 6.5.1, the beliefs in which the respondents reported the highest levels of agreement frequency are addressed. This is followed in section 6.5.2, by a discussion of the beliefs in which the participants reported the lowest levels of agreement frequency. This discussion is closed with section 6.5.3, devoted to

comment the beliefs to which learners reported they hold a neutral position agreement frequency (Neither agree nor disagree response).

6.6.1. BELIEFS WITH THE HIGHEST LEVELS OF AGREEMENT FREQUENCY

In this section, the findings from the study regarding the beliefs with the highest levels of agreement are discussed. Such beliefs were analyzed through a descriptive framework (percentages of learners' responses), based on the five point scale response options provided in the COBALTALI: Completamente de acuerdo (strongly agree), De acuerdo (agree), ni de acuerdo ni en desacuerdo (neither agree nor disagree), en desacuerdo (disagree), and completamente en desacuerdo (strongly disagree).

The study's findings showed that the three items with the highest frequency of learners' "strongly agree" response were items 7 (Para aprender inglés se necesita de interés/actitud para lograrlo) 16 (Es importante aprender ingles), and 52 (Cuando se quiere aprender inglés se puede). Item 16 exhibited the highest frequency of learners' "strongly agree" (82,6%), followed by item 7 (79,6%) and item 52 (69,6%). Interestingly, these three items corresponded to the domain Motivation and Expectations, according to the judgmental method employed in a previous phase of this study. Based on these results, the learners appeared to be conscious of both the important role motivation and attitude play on the language learning process, as Dörnyei and Kubanyiova

(2015) point out, and the outstanding role that English language plays in today's globalized world.

As might be expected, the findings related to item 16 (Es importante aprender ingles) of this study are consistent with the general results of previous studies undertaken in Colombia and overseas (Arenas, 2011; Avella & Camargo, 2010; Genç, Kuluşaklı, & Aydın; 2016, Yang, 1999). For example, the study developed in Colombia by Avella and Camargo (2010), with thirteen university students and fifteen tenth graders high school students, revealed that these students considered important to learn English. For gathering the data they used a questionnaire and a survey, which were presumably designed by these researchers. These findings are congruent with Arenas' (2011) research, which also revealed that the university students involved in the study held this belief.

Additionally, the study's findings demonstrated that there were a dozen of more items that presented prominent (at least 50%) "Strongly agree" response frequency: items 5, 8, 10, 14, 15, 17, 38, 39, 40, 41, 54, and 57. Concretely, 68% of the respondents strongly agreed with item 54 (Un profesor de inglés debe corregir al estudiante en el momento que sea necesario), 60,6% with item 10 (Para aprender inglés es necesario practicar la habilidad de escucha), 58,3% with item 5 (La enseñanza del inglés debe ser didáctica), 56,0% with item 40 (Se debería procurar en que el alumno desarrolle fluidez en el idioma inglés), 55,5% with item 14 (El profesor de inglés debe enfatizar mucho en la pronunciación), 55,1% with item 8 (Aprender inglés es más fácil si se hace

desde niño), 54,4% with items 38 (El profesor de inglés debe motivar a sus estudiantes a aprender ese idioma) and 41 (Se deben innovar las metodologías para la enseñanza del inglés), 54,0% with item 15 (Para aprender inglés es necesario contar con diversos recursos o materiales de clase (libros, Cds, ayudas audiovisuales, ayudas tecnológicas, etc.)), 53,6% with item 39 (La enseñanza del inglés debe ser más práctica que teórica), 52,0% with item 57 (Es importante que el docente enseñe al estudiante cómo aprender) and 51,9% of the participants with item 17 (La enseñanza del inglés debe ser lúdica). The most relevant comments on the abovementioned dozen of items are presented below. Items 10 and 54 will be addressed at the end of this section, when the five items with the most prominent combined strongly agree and agree percentages are discussed.

To begin with, it is notable that item 5 (La enseñanza del inglés debe ser didáctica) reported one of the highest strongly agree response frequency (58,3%). It is more notable that the reported either strongly agree or agree response frequency towardss this item was highly close to that reported towardss item 17 (La enseñanza del inglés debe ser lúdica): 90,8 and 91% respectively. These findings seem to be consistent in considering that in English language learning and teaching ludic is often viewed as one of the strongest didactic alternatives or strategies. In turn, these findings revealed the respondents' wish to have didactic English classes through ludic. In light of these results, it seems intuitive to assume that these participants relate didactic classes with those in which ludic plays a prominent role. Hence, English

teachers should focus more on didactic instructions based on ludic as a primary strategy if they aim at meeting their students' expectations.

As for the results on item 40 (Se debería procurar en que el alumno desarrolle fluidez en el idioma inglés) which was another item with a prominent strongly agree response frequency (56,0%) and a high combined strongly agree and agree response frequency (91,1%), the primary comment that arises is that although these findings clearly indicate that most of these learners bestow great importance to acquiring English language fluency for the best of their learning process, the lack of information available in regards to their view of language fluency hampers the interpretation of these findings. Indeed, language fluency has often been claimed to be difficult to define (Brown, 2003) and such difficulty lies in the fact that it encompasses many aspects of language, including native-like use of pausing, rhythm, vocabulary accuracy, grammar, intonation, and rate of speaking. Thereby, these findings, apart from evidencing that these learners recognize the usefulness of English language fluency, open the door for further research that examine how learners conceive language fluency. Further research is also called for examining what learners mean by didactic in item 17 (La enseñanza del inglés debe ser lúdica), which seems to be a vague concept. This panorama drives to invite potential users of the COBALTALI to recognize the limitations of this instrument. As previously discussed, the COBALTALI was designed to gather,

as a snapshot, the static, cross-sectional view of the English language learners in the Colombian university context.

Now, the discussion turns to the results pertaining to item 14 (El profesor de inglés debe enfatizar mucho en la pronunciación), to which most of the learners (94,1%) reported a general agreement (combined strongly agree and agree response frequency). The study's findings on this item suggest that these students recognize the useful role pronunciation plays in developing language competence in English, and therefore the importance of providing space in classes to help them improve this aspect of language. Such learners' recognition could drive to think that these learners show a positive attitude when pronunciation exercises are done in class.

Furthermore, it is important to point out that the scarcity of studies into learners' beliefs about English language pronunciation is visible in mainstream literature, which affects the attempts to compare these findings with previous evidences. However, these findings are congruent with those of Cenoz and Lecumberi (1999). These researchers, consistent with this study, evidenced that the English language learners of their study consider English pronunciation as difficult and important.

With reference to item 8 (Aprender inglés es más fácil si se hace desde niño), the study's results revealed that 55,1% of the participants strongly agreed with it, and that 81,2% either strongly agreed or agreed with this belief. One might

argue that this is an expected finding in considering the widespread folk belief that children are better (than adults) at learning second languages, belief that lends support in Lenneberg's (1967) critical period hypothesis. This finding is not a novel in previous studies: it is congruent with most previous studies' findings (Altan, 2006; Arenas, 2011; Brown, 1994; Johnson, 1990; Newport, 1990; Sakui & Gaies, 1999). Interestingly, what makes this finding worth mentioning is not that the overwhelming majority of the learners endorse this belief, but that these learners reported a divided opinion in regards to item 43 (Las personas mayores de edad presentan mayor dificultad para aprender inglés). At first glance, one could argue that the results of these two items are contradictory in the study, and even that these two items are in essence the same. However, after taking more time on analyzing these results this assertion might change. To begin with, the results pertaining to these items (8 and 43) might indicate that the respondents do not conceive human life in the narrowest sense, as that comprised by only two stages, childhood and adulthood, but that it is shaped by more stages, such as pre-birth, birth, infancy, early childhood, middle childhood, late childhood, adolescence, early adulthood, midlife and mature adulthood. However, whereas item 8 could mainly aim at the age onset for the English language process, according not only to childhood period versus adulthood period, but also childhood period versus adolescence period, item 43 could mainly aim at the whole process to learn such language, according not only to adulthood period versus childhood period, but also adulthood period versus adolescence period. If the abovementioned supposition is right, the finding regarding item 8 may imply

that for these respondents the English language learning process is easier when the learner starts such process in one of the stages of childhood (early, middle or late) and not in adolescence stage or one of the three stages of adulthood (early, midlife or mature). On this vein, the English language learning process is easier in childhood period than in adolescence stage and even adulthood period. In turn, the finding regarding item 43 (Las personas mayores de edad presentan mayor dificultad para aprender inglés) may insinuate that for these respondents the English language learning process is more difficult for adult learners than for children and even for teenager learners (a broader discussion in regards to item 43 will be presented below). Overall, given the lack of clarity about what these two items point to and what these sets of results imply, the researcher suggests to either discard one of these items and thus avoid confusion or add information that lead for a firm distinction between these items.

Following with the items that exhibited a high strongly agree response frequency, the discussion now focuses on items 38 (El profesor de inglés debe motivar a sus estudiantes a aprender ese idioma), 41 (Se deben innovar las metodologías para la enseñanza del inglés), 15 (Para aprender inglés es necesario contar con diversos recursos o materiales de clase (libros, Cds, ayudas audiovisuales, ayudas tecnológicas, etc.), and 39 (La enseñanza del inglés debe ser más práctica que teórica). The study's findings about these four items, showing that the vast majority of participants endorsed these beliefs, reflect that these learners adhere more to innovative methodologies

(item 41) and classroom instructions mediated by technological resources (item 15) that favor practice over theory (item 39). Likewise, the study's findings evidence that these learners recognize the important role English teachers play in motivating their students (item 38). Overall, these four reported beliefs can help English language teachers make decisions that correspond to their students' expectations.

The discussion on the items with prominent strongly agree response frequency closes with item 57. The study's findings in regards to 57 (Es importante que el docente enseñe al estudiante cómo aprender) showed that this item not only exhibited a high strongly agree response frequency (52,0%) but also was overwhelmingly endorsed by the learners: 87,9% either strongly agree or agree with this belief. These findings evidence the learners' recognition of the teacher's ability to teach them how to learn and contribute to encourage teachers to assume an active role in this task: teaching how to learn. Furthermore, the results of this study imply the relevance of motivation and identification of students' needs that we as teachers have to bear in mind when teaching. Besides, these findings may reflect learners' willingness to learn the strategies that are considered by their teachers as the most effective in English language learning, which could cultivate learners' learning autonomy. These findings are in line with Marqués' (2000) assertion that one of the roles of teachers is to help their students learn to learn independently. What is more, the current results imply the relevance of the identification of learners' needs and expectations that language teachers must consider when teaching. On

this vein, the current study can be seen as a contribution to provide Colombian English language teachers with empirical data (beliefs directly reported by Colombian English language learner) that can justify a crucial intervention in the learning experience of such students.

The findings of the current study on item 57 are consistent with those of Cotterall (1999). Her study, based on the administration of a 90-item questionnaire to 131 learners of English from the Victoria University of Wellington in New Zealand, evidenced that the majority of participants perceive the teacher's role as one that can help learners learn effectively.

After having presented the most relevant comments on the items that reported a high strongly agree response frequency it is appropriate to address the items to which the participants in the study reported the highest general agreement response frequency (combined strongly agree responses and agree responses).

In combining the percentage under “Completamente de acuerdo" and "De acuerdo" responses, (Strongly Agree and Agree), that is, when “Strongly agree” and “Agree” responses are taken as a single response, it is evidenced that the five items with the most prominent percentages (≥ 95,5 %) were items 7 (Para aprender inglés se necesita de interés/actitud para lograrlo), 10 (Para aprender inglés es necesario practicar la habilidad de escucha),16 (Es importante aprender inglés), 52 (Cuando se quiere aprender inglés se puede)

and 54 (Un profesor de inglés debe corregir al estudiante en el momento que sea necesario). According to the results reported in the instrument dimensionality stage of the judgmental method, three of these items pertain to the Motivation and Expectations domain, as noted above, one of them (item 10) relates to the Learning Strategies and Activities dimension, and the remaining one (item 54) does not comprise any of the six identified domains.

It is interesting to note that the overwhelmingly majority of learners (95,7%) endorsed the belief of “Un profesor de inglés debe corregir al estudiante en el momento que sea necesario". Based on this finding, it could be said that these learners confer great importance to the ability to produce correct speech. It is not surprising that these learners prefer English teachers who focus on grammar aspects in classroom activities. These findings are consistent with some previous studies on this topic, which have evidenced language learners' concern about making mistakes and language learners' comfort with error correction practices in the classroom (Brown, 2009; Davis, 2003; Ferris & Roberts, 2001; Schulz, 1996; Yang, 1999).

It is also worth highlighting from these results the fact that the majority of respondents (95,9%) bestow great importance to listening activities when learning English (item 10). It indicates that these learners are aware of the crucial role that listening plays in language learning, as many scholars have pointed out (Feyten, 1991; Vandergrift, 1997). These results, concerning item 10 (Para aprender inglés es necesario practicar la habilidad de escucha), are

consistent with those reported by Bernat (2004) and Sakui and Gaies (1999) whose findings have evidenced that language learners endorsed the importance of listening practices with audiovisual resources. Likewise, these results seem to be coherent with some other studies (Littlewood & Liu, 1996; Yap, 1998), which have reported that students feel more comfortable with receptive rather than productive activities.

6.6.2. BELIEFS WITH THE HIGHEST LEVELS OF DISAGREEMENT FREQUENCY

This section is devoted to discuss the beliefs with the highest levels of disagreement. It is recalled that the COBALTALI presented two response options for the respondents to report their degree of disagreement: “en desacuerdo” (disagree) and “completamente en desacuerdo” (strongly disagree).

The study’s findings showed that the overwhelming majority of the learners (86,7%) did not hold a total degree of disagreement towardss the items comprising the COBALTALI. Concretely, 13,3% of the respondents strongly disagreed with item 32 (El inglés es un idioma difícil de aprender), 12,6% strongly disagreed with item 21 (Los profesores de inglés deben ser de un país de habla inglesa), and 12,3% strongly disagreed with item 1 (Para aprender inglés es necesario hacerlo en un país de habla inglesa). In the other 54 items

shaping the COBALTALI the “completamente en desacuerdo” response frequency was lower (≤ 4,8%).

The interpretation of these 3 abovementioned items (32, 21 and 1) requires an overview of the results in the other four response options. To begin with, the results in regards to item 21 do not show an overwhelming level of agreement trend. When considering learners’ “Strongly disagree” and “Disagree” response frequency as a single percentage, the results revealed that 44,2% of the learners either strongly disagreed or disagreed with item 21 (Los profesores de inglés deben ser de un país de habla inglesa). The results, in turn, revealed that, when considering learners’ “Strongly agree” and “agree” response frequency as a single percentage, 17,9% of the learners either strongly agreed or agreed with this item. The percentage of learners' response in the neutral response alternative (neither agree nor disagree) was relatively considerable (37,8%). Together, the findings on item 21 evidence that the learners who participated in this study responded differently towardss this belief-statement. However, it may be striking to evidence that a substantial percentage of participants (44,2%) disagreed with this belief, which may provide support to the involvement of local English teachers in tertiary Education in Colombia. This finding suggests that there are many learners from this sample who have experienced English instruction with Colombian teachers as effective and are therefore more excited about instruction with local teachers or teachers who speak the "local" language (Spanish).

A relative closeness among the percentages regarding agreement (strongly agree and agree combined), disagreement (strongly disagree and disagree combined), and neutral agreement response frequency was evidenced in items 32 (El inglés es un idioma difícil de aprender) and 1 (Para aprender inglés es necesario hacerlo en un país de habla inglesa). In item 32 the three aforementioned percentages were 34,4%, 37,5% and 27,5% respectively, and in item 1 the percentages were 35,9, 32,9, and 30,9. The results regarding item 32 suggest that caution should be taken when attempting to determine whether or not these participants consider English as a difficult language. These results also evidence that a substantial number of participants (37,5%) do not consider English as a difficult language to learn, which may indicate that they have positive expectations towardss the learning process of this language. In this respect, Horwitz, (1988) states that students' judgment about the difficulty of learning a language likely influences their expectations and commitment towardss language learning tasks.

Interestingly, the belief addressed through item 32 (El inglés es un idioma difícil de aprender) has been of interest in other studies. Literature evidences that a considerable body of research reports that English is viewed by learners as a difficult language to learn (Arenas, 2011; Kunt, 1997; Park, 1995; Truitt, 1995; Yang, 1992).

The study's findings pertaining to item 1, revealing that the learners' opinion on the matter is divided, suggest that there are some of those participants who

feel comfortable taking the classes in Colombia and there are others who do not. On this issue, the researcher puts forward the hypothesis that the reason for some participants to hold reticence towardss learning English in a non-English speaking country could be attributed to the actual discouraging panorama about the English learning success in Colombia. This hypothesis has basis in the information provided by the Sistema Nacional de Información de la Educación Superior (SNIES), about the Colombian educational context, evidencing that most of the professional trainers of foreign language who presented the test known as “Prueba Saber Pro” in the year 2014 did not have the level of English proficiency that the Ministry of National Education require professional trainers of foreign language to have (C1). Furthermore, according to the SNIES, most of the students of eleventh grade of high school (middle level education) who presented the Icfes test in the second midterm of 2015 did not reach the expected level of English proficiency (B+).

The results concerning items 1 (Para aprender inglés es necesario hacerlo en un país de habla inglesa) and 31 (Es muy difícil aprender inglés en un país de habla hispana) seem to be congruent in the sense that both items deal with contextual conditions that facilitate English language learning and the frequency of responses in both items did not differ considerably. Note that in item 1 the percentage regarding the agreement response frequency (strongly agree and agree combined) was 35,9%, the disagreement response frequency (strongly disagree and disagree combined) was 32,9% and the neutral agreement response frequency was 30,9% and in item 31 those percentages

were 37,8%, 28,3% and 33,6%, respectively. Item 1 and 31 deal with an issue that has been of great interest by many researchers: conditions claimed to facilitate language learning. Literature reviewed on this issue evidences that some researchers (Carroll, 1967; Diller & Markert, 1983; Freed, 1990; Spada, 1986), for example, have stated that the impact of studying an L2 in a second language (SL) context is positive. However, there is less research focused on investigating the impact of studying an L2 in a FL context. The widely accepted idea about the conditions that facilitate language learning is that the amount of contact that learners have with the L2 has an important and decisive role in L2 learning (Brecht & Robinson, 1993; Seliger, 1977). Based on what has been commented above, in Colombia, the amount of contact that most of the English language learners have with the target language seems not to facilitate its learning, as it is suggested by the MEN through the document Colombia Very Well! Programa Nacional de Inglés 2015-2025. Together, these results entice to recommend further research on how these beliefs can influence learners' language learning success.

6.6.3. BELIEFS WITH THE HIGHEST NEUTRAL POSITION AGREEMENT FREQUENCY

This section is conceived to discuss the results about the beliefs that exhibited prominent neutral position agreement frequency. As can be seen in Table 16, the study's findings showed that there was a substantial number of learners (at

least 30,9%) who neither agreed nor disagreed with items 25, 19, 55, 35, 21, 45, 43, 31, 26, and 1. Given that in the previous section the results related to items 1 and 21 were discussed they will not be addressed in this section.

As for item 25 (Es mejor el inglés británico que el americano) the results of this study revealed that 33% of the learners either strongly agreed or agreed with that item, 9,4% either strongly disagreed or disagreed, and 56,8% neither agreed nor disagreed. This was the item with the highest neutral position agreement frequency. Before focusing on discussing the results on this item it may be pertinent to point out some contextual details that can shed light to interpret these findings. First, in Colombia there has not been any academic consensus over which form of English to use in schools. Second, it is reasonable to think that Colombian students are more exposed to the American English variety than to British English, due to the geopolitical proximity and close trading ties that Colombia has with the United States, the widespread consumption of American media, and the international political and economic position of the United States. Third, an average Colombian would probably not be well-versed with the differences between American and British language forms. The recurrent moments in which, as an English teacher in Colombian universities, I have found tertiary students from different English levels who do not know the difference between American and British English, incline me to think that some of the participants in this study also lack of such knowledge. Keeping these contextual details in mind the neutral position assumed by these learners concerning the statement "Es mejor el inglés

británico que el americano" could have several reasons. One of them may be that these learners lack knowledge regarding these two variations of English language. Another reason could be that, for these learners, there is no reason to believe that one of these variations of English is better than the other one. The results that 33% of the learners either strongly agreed or agreed with that belief, could obey to a matter of instrumental or integrative motivation (Gardner & Lambert, 1972). Perhaps these participants (33%) have practical reasons to believe that “British English is better than American English”, such as job opportunities in England (integrative motivation), or they hold a personal affinity towardss British people or their culture, in other words, their emotions or affective factors are dominant (integrative motivation).

In regards to research on beliefs related to language learning motivation, some studies have evidenced that EFL learners likely hold strong instrumental reasons for language learning rather than integrative reasons (Kunt, 1997; Park, 1995; Truitt, 1995; Yang, 1992). However, it is evidenced in literature a scarcity of research on motivational reasons which drive the learners to prefer a particular variation of the English language. Herein, as argued in prior paragraphs, since the results of this part of the study are characterized by its static, cross-sectional view of the participants' belief, further research with broader scope on the exploration of this belief are suggested to provide a clearer picture of these findings.

With respect to item 19 (Para aprender inglés es necesario saber acerca de los países de habla inglesa) the results of this study revealed that 36,6% of the learners either strongly agreed or agreed with that item, 20% either strongly disagreed or disagreed, and 43,2% neither agreed nor disagreed. This item exhibited the second highest neutral position agreement frequency. The uneven view of the participants towardss this item may indicate that there are some of these learners who have experienced progress in their English language learning without feeling significant reliance on cultural information of English speaking countries, while there are others who have not. Probably, the participants of this study who hold this belief have had positive language learning experience when they have been exposed to information from English speaking countries. However, there are some learners who prefer to learn English through local information, for example from and about Colombia. Interestingly, the results related to this item, along with those of item 1 (Para aprender inglés es necesario hacerlo en un país de habla inglesa), item 31 (Es muy difícil aprender inglés en un país de habla hispana) and item 21 (Los profesores de inglés deben ser de un país de habla inglesa), addressed above, show that the there are a substantial number of students who seem to be happy learning English in Colombia, with Colombian teachers, and who feel no need of knowing much about the English culture. These results may also reflect the ways of learning and the language instruction these learners have had.

Interestingly, this belief has been examined in other sociocultural contexts and the finding of the current study appears to diverge from those of previous studies (Riley, 2006; Sakui & Gaies, 1999). The great majority of the respondents in Sakui and Gaies' (1999) study as well as in Riley's (2006) study endorsed the BALLI item that "it is important to know about English-speaking cultures in order to speak English". A likely explanation for the contrasting finding is the sociocultural differences between these studies. Note that the studies performed by Sakui and Gaies (1999) and Riley (2006) were developed in very different sociocultural contexts to the current study: Japan. Indeed, the unique held traditions, values and ways of behaving of Japanese people, not to mention their singularities with regard to their languages, economic, political educational and social systems, and even their geographical features, greatly differ from those of the Colombian people.

Regarding the item 55 (En clase de inglés es más importante hacer énfasis en la habilidad de habla que en la gramática) the study's findings revealed that 50,5% of the participants either strongly agreed or agreed with that item, 9% either strongly disagreed or disagreed, and 40,0% neither agreed nor disagreed. The unbalanced learners' view with respect to this item may indicate that there are some of these learners who endorse a more communicative approach and others who sympathize more with traditional approaches that confer prominent importance to language form. The results in regards to those learners who reported a neutral position could indicate that they confer balanced importance to grammar and speaking skill.

Interestingly, the findings of the current study appear to diverge from those of previous studies on this issue (Brown, 2009; Davis, 2003; Kern, 1995, Schultz 2001), which have evidenced that, in general, students confer great importance to grammar. For example, Schultz's (2001) study, aimed at exploring student and teacher perceptions related to the role of explicit grammar instruction and corrective feedback in foreign language learning, based on a questionnaire administered, on the one hand, to 607 Colombian foreign language (FL) students and 122 of their teachers, and on the other hand to 824 U.S. FL students and 92 teachers, revealed that the Colombian students, as well as their teachers, were more preferably inclined towardss formal teaching of grammar and explicit correction than their American counterparts. A plausible explanation to the disparity between the results of this study with the results of Schultz's (2001) study is that the promotion of current Communicative Language Teaching (CLT), in which grammar is no longer the starting point as it was in classic CLT (see Richards, 2006 for a broad description of CLT) as an ideal approach to help learners acquire a foreign language, has gained outstanding strength in this country in the last few years. Indeed, the recent reforms on language education in Colombia (see the so called "Revolución Educativa 2002-2006 and 2006-2010", and the document Colombia Very Well! Programa Nacional de Inglés 2015-2025) aiming at developing students' communicative competence, have priviledged pedagogical practices or instructional activities dedicated to help students develop communicative skills that allow them to negotiate meaning and interact meaningfully, rather than

those activities which simply demand accurate repetition and memorization of sentences, vocabulary and grammatical patterns.

As for item 35 (Es importante que el docente de inglés haya estado en un país de habla inglesa) the study's findings revealed that 39,6% of the participants either strongly agreed or agreed with that item, 21,7% either strongly disagreed or disagreed, and 38,4% neither agreed nor disagreed. The varied respondents' opinions concerning this item may be based on personal experiences they have had with English teachers with and without experiences abroad. Therefore, it does not come as a surprise that the learners who either strongly agreed or agreed with this item consider that a teacher who has lived in an English speaking country is a more reliable source to learn English than those who have not been abroad, because they have had good learning experiences with the former. Conversely, it is probable that the learners who disagreed with this statement or who reported a neutral position consider that teachers with overseas experiences can be as reliable sources for their English learning process as those without them. This may imply that for some learners the teachers' profile can affect their students' attitude towardss the learning process.

With regard to item 45 (La pronunciación del inglés es difícil de aprender) the study's findings revealed that 39,3% of the participants either strongly agreed or agreed with that item, 24,9% either strongly disagreed or disagreed, and 35,5% neither agreed nor disagreed. These findings clearly evidence a lack of

a prominent trend on the participants' perceptions of the difficulty of English pronunciation. Whereas almost a third part of those participants reported that they had the perception that English pronunciation is difficult, the other two parts of those learners expressed that they either disagreed with that perception or held a neutral position. In resorting to speculation, one might suppose that those who regarded English pronunciation as a difficult aspect of this language lack of a positive attitude towardss pronunciation learning, whereas those who reported the opposite tend to have a positive attitude towardss it.

Unfortunately, when attempting to corroborate these findings with previous research, the lack of studies on learners' beliefs about English pronunciation hampers this task. However, Cenoz and Lecumberri's (1999) study undertaken in the Basque Country (Spain) revealed that English language pronunciation was regarded as a difficult and important skill for the sample of the study, which consisted of 86 university students from two linguistic groups, that is Basque L1 learners and Spanish L1 learners. The levels of disparity between the current study's finding and those of Cenoz and Lecumberi may be attributed to learning context differences. According to Simon and Taveniers (2011) the learning context exerts a substantial influence on the formation of learners' beliefs about L2 pronunciation. Overall, the lack of research on beliefs about English language pronunciation suggests the urgency for further research.

Concerning item 43 (Las personas mayores de edad presentan mayor dificultad para aprender inglés), the study's findings showed that 50,6% of the participants either strongly agreed or agreed with that item, 15,1% either strongly disagreed or disagreed, and 34,1% neither agreed nor disagreed. Clearly, these findings evidence that slightly more than a half of the participants (50,6%) endorsed this belief. These findings ran counter to the researcher's expectation, who would have expected a higher percentage. Given the ostensibly universal folk belief that children are better at learning second languages, the researcher expected that the overwhelming majority of the learners would endorse this belief. Beyond this expectation, the nonsymmetrical participants' view towardss this belief may be due to the fact that, although there is a substantial body of evidences that support the assertion that it is easier for children than adults to learn a foreign language, the last word has not yet been said on this issue. Indeed, an indicator proving that more evidence is needed to close this topic is that most researchers, focused on the effect of age on language learning, often suggest further investigations to corroborate their findings. Furthermore, these findings may suggest that there are some students in this sample who have witnessed successful cases of adults' language learning. Muñoz's (2010) study, for example, shows that older language learners outperform younger ones in explicit language instruction contexts because of their greater cognitive maturity. Additionally, it could be heartening for language teachers to see their university-adult students expecting to succeed despite their age conditions.

The findings of this study on item 43 appear to be partly consistent with previous studies on beliefs about age factor (Altan, 2006; Arenas, 2011; Brown, 1994; Johnson, 1990; Newport, 1990). For example, Arenas' (2011) study, carried out in Colombia with the objective of determining the relationship between the beliefs held by university students with the existence of high affective filter in learning English as a foreign language, evidenced that these learners held the belief that children are better at learning English than adults are.

With reference to item 26 (Es más importante la pronunciación que el acento) the study's findings showed that 58,7% of the participants either strongly agreed or agreed with that item, 8,3% either strongly disagreed or disagreed, and 31,8% neither agreed nor disagreed. Again, presumably unexpectedly for some, these findings evidence a divided opinion among the participants. In observing these results one might argue that there is a considerable, but not overwhelmingly, number of learners in this study (58,7%) who confer greater importance to learning the correct articulation (production) of the English language sounds than to learning about one of the suprasegmental aspects of speech: accent. A possible explanation in regards to the 31,8% of the participants who neither agreed nor disagreed, which is a relatively substantial percentage, is that those learners are not well-versed with the differences between pronunciation and accent. Quite understandably, although Colombian English language learners, and language learners anywhere, are often taught in terms of good and bad or correct and incorrect pronunciation, probably very

few of them have had the opportunity to be taught about the rich variety of English accents existing in the world. If this consideration is right, these findings may be an indicator that language teachers often fail to help their students appreciate the ways in which English accents differ.

Unfortunately, to the best of the researcher's knowledge this belief has not been addressed in previous research, which hampers the endeavors to corroborate these findings. Altogether, given that this statement was suggested by a substantial number of Colombian university students (a sample of 249 English language learners from 4 universities located in Bogota) to comprise the COBALTALI, because this belief seemed to be latent in Colombian language learners' mind but in view of the fact that these findings evidence a relative divided opinion among the participants of the study, further research is required to corroborate these findings, and even explore potential effects of this belief.

In short, the results in regards to the sixth research question of the study – What beliefs do university students who are learning English as a foreign language in Colombia hold about English language teaching and learning?– dealing with the second objective of the study, revealed that the majority of the participants endorsed the beliefs shaping the COBALTALI. In only two items (Los profesores de inglés deben ser de un país de habla inglesa or item 21 and El inglés es un idioma difícil de aprender or item 32) of the 57-item COBALTALI the participants' generally disagreement response frequency

("Strongly disagree" and "Disagree" response options combined) exceeded the participants' generally agreement response frequency ("Strongly agree" and "Agree" response options combined). These results also revealed that in only one item (item 25: Es mejor el inglés británico que el Americano) the participants' neutral position response frequency ("Neither agree nor Disagree" response option) surpassed the participants' generally disagreement response frequency ("Strongly disagree" and "Disagree" response options combined) and the generally agreement response frequency ("Strongly agree" and "Agree" response options combined). On balance, the results on the participants' beliefs description indicate that these learners held an assortment of beliefs about English language teaching and learning and that they generally agreed with the vast majority of the items comprising the COBALTALI.

After having discussed the findings concerning the sixth research question of the study, it is time to discuss the findings related to the effect gender variable exerted on the four factors extracted though exploratory and confirmatory analyses, which pertain to the seventh research question of this dissertation.

6.7. RESEARCH QUESTION 7: Does gender affect Colombian learners' beliefs about English language teaching and learning?

One of the purposes of this study was to explore whether the gender, English level, socioeconomic stratum, and age variables performed any effect on

learners' beliefs about English language teaching and learning. This section is dedicated to examine the gender variable, as the research question posed above indicates. It may be pertinent to say that when undertaking this exploration the researcher came up with a pertinent task: to make the hard decision of performing such examination on each item shaping the COBALTALI, on the dimensions identified through expert judgment, or on the factors (dimensions) extracted through factor analysis. All these three types of explorations seemed to be worthy of consideration. After mulling it over the researcher inclined to explore such variables on the basis of the extracted factors. He made this decision to strictly serve his personal research interest: to start this first field administration of the COBALTALI by gaining understanding of potential correlations between the participants' variables such as gender, English level, socioeconomic stratum, and age and the participants' response patterns (factors) about their beliefs about English language learning and teaching.

To establish whether there are any gender differences in the scores (means) of the four empirical factors, labeled as Teaching Methods/ Approaches, Learning Strategies and Activities, Learning Aptitude and Difficulty, and Teacher's Role/ Profile, a Student's t test for independent samples was performed. It should be recalled that the outcome of a Student's t test is the acceptance or rejection of the null hypothesis (H0). As stated earlier, the null hypothesis is assumed to state that any differences, discrepancies or suspiciously outlying results in the comparison of the two means are purely due to random and not systematic

errors. This statistical resource technique is one of the most used techniques for determining whether two samples are the same with respect to a variable tested. The results obtained with the performance of the Student's t test to the four factors extracted empirically, evidenced, in all the cases, homoscedasticity (equality of variance between groups). In other words, the results (shown in Table 17) of this analysis revealed that the two independent variables (275 males and 288 females) presented almost the same percentage of scores pertaining to the items comprising the four factors under analysis. That is, the scores of the male and female participants were not significantly different from each other. Thereby, it can be said that the male and female participants in this study held almost the same English language learning beliefs comprising the four factors under study.

Inspection of the literature focused on gender differences in students' beliefs about language learning suggests that research on this issue is sparse, especially in Colombia, and that previous studies yielded a variety of different results. The variety of findings is widely assumed by the fact that language learning beliefs are context specific (Nikitina & Furuoka, 2006). When examining studies with relatively congruent results to those evidenced in this study, two deserve to be mentioned: Bernat and Lloyd's (2007) study and Tercanlioglu's (2005) study. The former, which aimed at ascertaining whether there were any gender differences, revealed that, overall, males and females held similar beliefs about language learning. Bernat and Lloyd's (2007) study was undertaken at an Australian university, with a sample which consisted of

262 EFL students from 19 different countries (155 female and 107 male), and through the administration of the survey instrument BALLI. Likewise, Tercanlioglu's (2005) study also revealed no statistically significant difference between male and female respondents. This study was undertaken in Turkey with a sample comprised by 118 pre-service EFL teachers (43 male and 73 female), who responded to Horwitz's BALLI.

As noted earlier, there are also studies which have revealed different results. Two of them are Siebert's (2003) study and Yilmaz's (2010) study. Siebert's (2003) BALLI based study, for instance, reported significant differences about language learning beliefs of 156 participants (64 female and 91 male language learners), who were studying English at a higher education institution located in the U.S. One of the differences observed between males and females in Sieber's (2003) study was in relation to language learning abilities and strategy use. Concretely, male students were more inclined to rate their abilities higher than female students. In turn, Yilmaz's (2010) study, undertaken with a sample of 23 male and 117 female students enrolled in a university located in Turkey, revealed significant gender-related differences. Concretely, females, compared to males, exhibited more frequent affective strategies.

The literature addressed above indicates that there is a variety of findings related to the role of gender in language learning beliefs. This fact seems to be due, partly, to the context specific and multi-faceted nature of language learning beliefs (Nikitina & Furuoka, 2006). On this issue, given that the results

of the current study are consistent with only some of them undertaken in other latitudes, with different sociocultural characteristics, no generalization will be made from the findings of the present study beyond its real scope.

In brief, the results in regards to the seventh research question of the study – Does gender affect Colombian learners' beliefs about English language teaching and learning? – related to the third objective of the study, revealed, based on the performance of the Student's t test to the four factors extracted empirically, that the scores of the male and female participants did not show statistical significance. In other words, these results indicated that the two independent variables (275 males and 288 females) were not significantly different from each other. In that event, it can be argued that the male and female participants endorsed almost the same English language learning beliefs comprising the four factors under study.

Herein, the discussion was focused on the results of the comparison of means in the four dimensions abstracted through factor analysis according to the variable of gender. The following section will deal with the comparison of means according to the English level variable.

6.8. RESEARCH QUESTION 8: Does English level affect Colombian learners' beliefs about English language teaching and learning?

Another purpose of this study was to explore whether the English Level variable has any effect on learners' beliefs about English language teaching and learning. In order to carry out such exploration two statistical methods were advocated: one-way ANOVA analysis and a Post Hoc test. With these statistical methods the means of the four dimensions abstracted through factor analysis, labeled as Teaching methods/ approaches, Learning strategies and activities, Learning aptitude and difficulty, and Teacher's role/ profile, were compared according to the variable of English level. For the sake of clarity, it is important to recall that the participants in this study corresponded to five English level groups, according to a classification made in their places of study: A1, A2, B1, B2, and C1. However, given that the number of participants in the B2 and C1 English level groups were relatively small (17 students of B2 and 15 students of C1) it was opted to take these two groups (B2 and C1) as only one set.

The results of the one-way ANOVA analysis (shown in Table 28) revealed that there were only significant differences in the factor labeled as Learning aptitude and difficulty [$F(3) = 27.527$, $p = 0.000$], concerning the variable English level. Concretely, these results indicated that as the English level is increased, the scores in the factor labeled as Learning Aptitude and Difficulty are also increased, being strongly agree response option the highest score on a 5- Likert scale response option ranging from strongly agree to strongly disagree and strongly disagree response option the lowest score. Given that this type of analysis yields a score of the whole factor but not of each item

shaping such factor, it is not possible to identify whether these results imply more aptitude or more difficulty. Hence, further studies on this issue are required. In the factors labeled as Teaching Methods/ Approaches, Learning Strategies and Activities, and Teacher's Role/ Profile the *p* values were greater than "(α)" level (set at .05), indicating that there were not significant differences in these three factors. Based on these results it can be said that the researcher failed to reject the null hypothesis on these three factors, unlike the factor labeled as Learning Aptitude and Difficulty. Further, with the purpose of determining between which pairs of English levels there were significant differences in the Learning Aptitude and Difficulty factor, which was the factor that exhibited significant differences with the one-way ANOVA analysis, a Post Hoc test of least squares difference (LSD) was performed. The Post Hoc test revealed that there were statistically significant score differences in all the comparisons (p = 0.000), with the exception of the students from level B1 to B2-C1 level, indicating that the beliefs about English language teaching and learning, pertaining to the factor labeled as Learning Aptitude and Difficulty, of the learner in these levels (B1 and B2-C1) did not change. From these results it can be said that as greater control of the target language (English) is gained, the beliefs about English language teaching and learning, pertaining to the factor labeled as Learning Aptitude and Difficulty, are stabilized (the participants' response frequency did not show the observed tendency towardss a strongly agree response option). On this vein, these results can also constitute evidence of construct validity of the target instrument (COBALTALI), to the extent that this instrument proves to be sensitive to changes in the

perception of the difficulty of learning English when greater control is achieved in the learning of such language.

In addition to this analysis, a two-way ANOVA analysis was performed in order to explore the combined effects of English level and gender concerning the factor labeled as Learning Aptitude and Difficulty. In other words, the means of the two independent variables English level and gender (hence the name two-way) were compared in order to explore how they affect the dependent variable (Learning Aptitude and Difficulty).

The results of this two-way ANOVA analysis (described in Table 42 and in Figure 4) revealed that, as the male learners' English level improves, that is, as the male learners reach higher English level proficiency, their scores on the scale of Learning Aptitude and Difficulty increase. This analysis also revealed that as the female learners' English level improves until reaching the B1 level, that is, as the female learners advanced to reach the B1 English level proficiency, their scores on the scale of Learning Aptitude and Difficulty increase (their responses show a tendency towardss a strongly agree response option). However, when female learners reach the B2-C1 English level, their scores on the scale of Learning Aptitude and Difficulty tend to be stable, without showing an increasing tendency (no tendency towardss a strongly agree response option). Overall, these results indicate that the beliefs that the male and female participants in this study hold about English language teaching and learning, concerning the items comprising the factor labeled as

Learning Aptitude and Difficulty, are not the same with regard to the English level and gender independent variables. Such beliefs differ when male and female learners reach the B2-C1 English level.

Interestingly, this finding seems to have no precedent in studies on language learning beliefs, which limits a possible explanation. Hence, unfortunately, there is not opportunity to compare this set of findings with results of other studies. On this vein, one might say that this finding contributes to turn this study into a unique project. In turn, given the apparent absence of research on this issue, it is the opportunity to call for further studies intended to present more in-depth explorations of this phenomenon.

In essence, the results dealing with the eighth research question of the study – Does English level affect Colombian learners' beliefs about English language teaching and learning? – which addresses the third objective of the study, revealed that there was statistical significance on the Learning Aptitude and Difficulty factor only in female participants with B2-C1 English level proficiency. No statistical significance was found in the other three factors. Such statistical significance, based on the results of a two-way ANOVA analysis, indicates that when female students reach the B2-C1 English level the observed tendency, in the other participants, towardss a strongly agree response option decreases. This finding suggests that the English level variable affects the female participants' beliefs about English language teaching and learning shaping the Learning Aptitude and Difficulty factor, but only when such participants reach a

B2-C1 English level proficiency. As noted earlier, given that of a two-way ANOVA analysis yields a score of the whole factor but not of each item shaping such factor, it is not possible to define whether these results imply more aptitude or more difficulty, therefore further studies should be done to shed light on this findings.

The next section addresses the results in regard to a comparison of means of the four domains extracted through factor analyses, according to the socioeconomic stratum variable.

6.9. RESEARCH QUESTION 9: Does socioeconomic stratum affect Colombian learners' beliefs about English language teaching and learning?

The present section is devoted to discuss the results of the analysis intended to explore the extent to which the socioeconomic stratum variable affects learners' beliefs about English language teaching and learning. The analysis pertains to a comparison of means of the four factors (also referred to as scales or dimensions throughout this study), extracted through factor analyses, labeled as Teaching Methods/ Approaches, Learning Strategies and Activities, Learning Aptitude and Difficulty, and Teacher's Role/ Profile, according to the

socioeconomic stratum variable. For this aim, it was again advocated for one-way ANOVA analysis.

For the sake of clarity in the interpretation of these results it is important to note three aspects. First, the sample for this analysis consisted of 547 participants (out of 563) because there were 16 participants who did not report their socioeconomic stratum. Second, the socioeconomic stratum of these 547 participants ranged from 1 to 5, being 1 the lowest socioeconomic stratum and 5 the highest socioeconomic stratum, respectively. It should be pointed out that the participants know their socioeconomic stratum through their public services bills issued by the government. Of this sample, 14 participants were of 1 socioeconomic stratum, 204 were of 2 socioeconomic stratum, 291 were of 3 socioeconomic stratum, 36 were of 4 socioeconomic stratum, and 2 participants were of 5 socioeconomic stratum. And third, in one-way ANOVA analysis, the *p* value (or Sig.) indicates whether there are significant differences in the comparison of means of the variables under analysis; if the obtained *p* value (or Sig.) is less than the critical value of alpha (α), which was set at .05, then the effect is said to be significant.

According to the one-way ANOVA analysis, there were no significant differences ($p > 0.05$) in any factor, labeled as Teaching Methods/ Approaches, Learning Strategies and Activities, Learning Aptitude and Difficulty, and Teacher's Role/ Profile (see Table 30). Thereby, these results indicated that

the independent variable of this analysis (socioeconomic stratum) did not represent any (statistical significance) effect on those four factors, given that the *p* values (or Sig. values) of those factors were higher than .05 (see Table 43).

From this set of results it can be said that the participants' socioeconomic stratum does not play any important role on learners' beliefs about English language teaching and learning. However, given that in the sample under examination the number of participants of 5 socioeconomic stratum was relatively limited (only 2 participants), as well as the number of participants of 1 socioeconomic stratum (only 14), whereas the number of participants of 2 and 3 socioeconomic stratum was bigger than 200, other studies should be undertaken with bigger number of participants in each socioeconomic stratum to contrast the findings of this study. Hence, caution should be taken when attempting to make generalizations on these findings. Likewise, it is important to note that research on this issue has not been undertaken in Colombia yet. To my knowledge, research on this issue has not been undertaken in other parts of the world either. Therefore, contrast of this set of findings with other results is impossible to be performed now. Again, this is another aspect that contributes to the uniqueness of this study.

Overall, the results related to the ninth research question of the study – Does socioeconomic stratum affect Colombian learners' beliefs about English

language teaching and learning? – which addresses the third objective of the study, revealed that there was no statistical significance on any of the four factors under analysis in relation to the participants' socioeconomic strata. These results, which emerged from a one-way ANOVA analysis, indicate that the participants' socioeconomic stratum variable did not exert any effect on the participants' beliefs shaping the four factors under question.

After having discussed the findings with regard to the effect of participants' socioeconomic stratum on learners' beliefs about English language teaching and learning, it is time to focus on the following section, devoted to address to what extent the age variable have any effect on learners' beliefs about English language teaching and learning.

6.10. RESEARCH QUESTION 10: Does age affect Colombian learners' beliefs about English language teaching and learning?

This section is conceived to discuss the results of the analysis intended to explore the extent to which the age variable affects the learners' beliefs about English language teaching and learning. To start with, it is important to note that from the beginning of this study the researcher's interest was to explore the age variable on the learners' beliefs about English language teaching and learning, and the researcher expected to find relatively substantial age variability in the sample for the study. This expectation laid on two facts: first

that the universities located in Bogota usually count on students from different ages, ranging from 15 to even around 40 years and, second, that the researcher expected to be able to shape this sample from 22 universities located in Bogota. However, unfortunately, only six universities enabled the researcher to survey their students. When the sample was examined, it was surprisingly noted that the participants (559 university students from six universities located in Bogotá) did not exhibit important age variability, given that all the participants' ages were concentrated on two ranges 16-19 (44,40%) and 20-23 (35,70%), with a mean age of 20.9 years. Despite this fact, it was opted to continue with the plan: to analyze the correlations between age and each of the four factors extracted through factor analysis (Teaching Methods/Approaches, Learning Strategies and Activities, Learning Aptitude and Difficulty, and Teacher's Role/Profile) through Pearson's correlation coefficient. This statistical tool, whose symbol is "r", is a measure of the "strength of the association" or "linear relationship" between two variables. Pearson's r, as noted earlier, can range from -1 to 1; an r of -1 indicates a perfect negative linear relationship between variables, an r of 0 indicates no linear relationship between variables, and an r of 1 indicates a perfect positive linear relationship between variables. It is widely accepted that a high correlation is when the r is .5 to 1.0 or -0.5 to 1.0; a medium correlation is when the r is .3 to .5 or -0.3 to .5; a low correlation is when the r is .1 to .3 or -0.1 to -0.3.

The results of this analysis (see Table 44) revealed that there was not a correlation between the age variable and the four factors under analysis - $p < 0,05$ – indicating that the independent variable of this analysis (age) did not represent any (statistical significance) effect on the four factors under examination. To put it in a nutshell, there is no significant difference between younger and older students' beliefs about English language learning and teaching. A possible explanation of these results is the lack of age variability: the participants' ages concentrated on two ranges 16-19 (44,40%) and 20-23 (35,70%). Hence, there is a call for further research, with more age variability, intended to corroborate these findings.

On the whole, the results about the tenth research question of the study – Does age affect Colombian learners' beliefs about English language teaching and learning? – dealing with the third objective of the study, showed that there was no statistical significance on any of the four factors under analysis in relation to the participants' ages. These results, which emerged from a Pearson's correlation coefficient, indicate that the participants' age variable did not exert any effect on the participants' beliefs shaping the four factors (dimensions extracted through factor analysis) under question.

CHAPTER SUMMARY

This chapter discussed the study's findings in light of the theoretical issues and conceptual underpinnings reviewed in chapter four. It took the ten research questions posed to guide the study as benchmarks to structure the discussion. Initially, the construct validity properties of the COBALTALI were discussed. The accumulated evidence gathered through the different developmental stages of the COBALTALI indicated that the COBALTALI exhibited adequate construct validity properties, which implied that the items comprising such instrument were appropriate to measure Colombian learners' beliefs about English language teaching and learning. Then, the discussion turned around the results on the six COBALTALI dimensions of language learning beliefs identified through expert judgment. After that, the spotlight of the discussion was on the four factors deduced from the data pertaining to the participants' belief report. Next, the discussion had to do with the evidences gathered on the COBALTALI internal consistency and stability reliability based on both the six dimensions identified through expert judgment and the four factors extracted through the performance of exploratory and confirmatory factor analyses. Subsequently, the chapter discussed the beliefs about English language teaching and learning held by the 563 Colombian university students of English who participated in the study. The chapter then closed with the discussion of the results related to how the gender, English level, socioeconomic stratum, and age variables affected learners' beliefs about English language teaching and learning, taking as benchmarks the four factors deduced through a series

of factor analyses. Overall, throughout this chapter overarching comments emerged. First, the COBALTALI exhibits adequate psychometric properties to examine Colombian university English language learning beliefs. Second, the COBALTALI deals with six dimensions, facets or spectrums of language learning beliefs: Learning Context, Teacher's Role/Profile, Motivation and Expectations, Learning Strategies and Activities, Teaching Methods/Approaches, and Learning Aptitude and Difficulty. Third, the participant learners' beliefs about English language teaching and learning, reported through the administration of the COBALTALI, can be interpreted through a four factorial solution. The factors for that factorial solution can be labeledas Teaching Methods/Approaches, Learning Strategies and Activities, Learning Aptitude and Difficulty, and Teacher's Role/Profile. Fourth, based on the six dimensions or subscales that emerged a priori (through expert judgment), the COBALTALI exhibits adequate stability reliability characteristics in the six dimensions, adequate internal consistency in two of those dimensions and inadequate internal consistency in four of them. Fifth, the COBALTALI exhibits adequate internal consistency and stability reliability characteristics, based on the four factors deduced through factor analyses. Sixth, the 563 participants in the field administration of the COBALTALI hold a variety of beliefs about English language teaching and learning and their degree of agreement with the items comprising the COBALTALI is not constant: taking them altogether they strongly endorsed certain items comprising the COBALTALI, moderately agreed or disagreed with others, and took a neutral position with yet other items. Seventh, the male and female

participants in this study held almost the same English language learning beliefs comprising the four factors under study, indicating that gender variable did not affect students' beliefs about language learning. Eighth, unlike in the factor labeled as Learning Aptitude and Difficulty, the English Level variable did not have any effect in the factors labeled as Teaching Methods/ Approaches, Learning Strategies and Activities, and Teacher's Role/ Profile. Such effect is only perceived when female learners reach the B2-C1 English level. In male students such variable does not exert any influence. Ninth, the socioeconomic stratum variable did not represent any (statistical significance) effect on the four factors abovementioned. Finally, tenth, the age variable did not represent any (statistical significance) influence on the four factors under examination.

This chapter yields the way to the final, concluding chapter of the dissertation. Such chapter is devoted to outline the prominent conclusions of the study, highlight its uniqueness and limitations, present the implications of the study's findings and suggest further research. The next, and final, chapter concludes the thesis by providing an overall summary, highlighting the key contributions to the fields of CLIL and teacher cognition research, identifying limitations and suggesting directions for future research.

SIXTH PART:

Conclusion

CHAPTER 7. CONCLUSION

CHAPTER OVERVIEW

Chapter seven is conceived to present the most prominent conclusions of this study in the light of the objectives set out in this project. It then proceeds to address the uniqueness of the study. Subsequently, it outlines the most noticeable implications of the findings in the study, concerning pedagogical and research issues, and then exhibits some recommendations based on such findings. After that, this chapter addresses the limitations of the study. This chapter closes by presenting some general directions for further research.

7.1. PROMINENT CONCLUSIONS OF THIS STUDY

This part of the dissertation is devoted to present the most prominent conclusions of the study. Given that in the discussion section some conclusions about the results have already been drawn, the concluding comments presented here deal with general aspects of the study.

To start, the first objective of this project was reached: the development of a language measuring instrument with technical qualities to yield reliable and validated scores. A novel instrument called Colombian Belief about Language

Teaching and Learning Inventory – COBALTALI – was developed as a data collection instrument with the properties to depict the most latent and prominent beliefs Colombian students hold about English language learning and teaching. The COBALTALI was found to be shaped by 57 items and deals, according to an expert judgment, with six domains, facets or spectrums of language learning beliefs: Learning Context, Teacher's Role/Profile, Motivation and Expectations, Learning Strategies and Activities, Teaching Methods/Approaches, and Learning Aptitude and Difficulty. Based on the judgmental and statistical methods used to develop and validate the COBALTALI, along with the data analysis results, the instrument appeared to exhibit high/moderate content and construct validity properties. Likewise, based on the reliability analysis performed to the data collected in the field administration of the COBALTALI (the beliefs reported by the participants in the Participants' Belief Description Stage), and the data collected for the test-retest process, the instrument was found to show high/moderate stability reliability qualities in the six dimensions abovementioned as well as in the four factors (dimensions or underlying structures) deduced from the reported beliefs. The four factors were labeled as Teaching Methods/ Approaches, Learning Strategies and Activities, Learning Aptitude and Difficulty, and Teacher's Role/ Profile. As for the aspect of internal consistency reliability, the analysis on the six dimensions identified through expert judgment the COBALTALI evidenced adequate estimates of this type of reliability in only two dimensions (Learning Strategies and Activities and Teaching Methods/Approaches), however, high/moderate internal consistency reliability

was evidenced in the four extracted factors, labeled as Teaching Methods/ Approaches, Learning Strategies and Activities, Learning Aptitude and Difficulty, and Teacher's Role/ Profile. The findings evidencing that four of the six dimensions identified through expert judgment did not show adequate internal consistency reliability (their Cronbach's alpha values were low) raise the need to undertake further research on both improving this aspect of the COBALTALI or examining whether it is pertinent to advocate exclusive reliance on Cronbach's alpha values to estimate internal consistency reliability in a language belief test or inventory. Overall, it can be said that the COBALTALI has the technical qualities to measure what it was purported to measure: Colombian university's beliefs about English language learning and teaching.

Likewise, the second objective of this study was fulfilled as expected. This study aimed at exploring the participants' beliefs about English language learning and teaching, through the language measuring instrument intended to be developed in this study: the Colombian Beliefs about Language Teaching and Learning Inventory (COBALTALI). As planned, a description was obtained of the beliefs about English language learning and teaching held by a substantial number of participants: 563 university students. The results on this description revealed that the 563 participants held an assortment of beliefs about English language teaching and learning. Such results also showed that their degree of agreement with the items shaping the COBALTALI was not consensual: their response frequency towardss the beliefs comprising the

COBALTALI varied across from the five exhibited response options: strongly agree, agree, neither agree nor disagree, disagree and strongly disagree.

From the description of the participants' beliefs it can be concluded that the majority of the learners endorse the beliefs shaping the COBALTALI. The results evidenced that in only two items (Los profesores de inglés deben ser de un país de habla inglesa or item 21 and El inglés es un idioma difícil de aprender or item 32) of the 57 comprising the COBALTALI the participants' generally disagreement response frequency ("Strongly disagree" and "Disagree" response options combined) surpassed the participants' generally agreement response frequency ("Strongly agree" and "Agree" response options combined).

The participants' beliefs description evidenced that the vast majority of the learners hold the fifteen beliefs shaping the Learning Strategies and Activities dimension identified through expert judgment. Concretely, they bestow great importance to listen-to-English music activities (item 2), learning vocabulary (item 3), learning-dedication (item 9), listening exercises (item 10), reading exercises (item 18), conversation with native speakers (item 20), extra-class work (item 24), translation exercises (item 27), writing exercises (28), thinking-in- English exercises (item 34), internet resources (item 37), target language practices (item 44), competition activities (item 50), repetition activities (item 51), and singing-in English activities (item 56).Hence, it can be inferred that

beliefs related to Learning Strategies and Activities figure prominently in these learners.

The results about the examination of the participants' beliefs led to conclude that they endorsed the three items shaping the dimension labeled as Learning Context (identified through expert judgment). In detail, they held the belief that learning English is easier if it is done since it is a child (item 8), the belief that to learn English it is necessary to study it in person or face-to-face (item 46) and the belief that to learn English it is necessary to do it in an English speaking country (item 1). It should be noted, however, that the results in regards to item 1, unlike those related to items 8 and 46, did not show an overwhelming level of agreement trend: 35,9% of the participants generally agreed, 32,9% of them reported a neutral position and 30,9% generally disagreed with this belief. This set of results leads to conclude that the participants in this study confer great importance to starting the English learning process in an early age and studying English in person. In addition, the relative closeness among the percentages regarding agreement (strongly agree and agree combined), disagreement (strongly disagree and disagree combined), and neutral agreement response frequency found in items 1 (Para aprender inglés es necesario hacerlo en un país de habla inglesa) suggests that although the majority of the participants hold this belief there are a substantial number of the participants who feel comfortable learning English in Colombia.

The participants' beliefs description also drives to conclude that the majority of the participants endorse the eighteen beliefs shaping the Teaching Methods/Approaches dimension identified through expert judgment. These results evidenced that there are a variety of teaching procedures and decisions to which most of these learners conferred great importance for their English learning process and success, including audiovisual aids for language instruction (item 4), didactic classes (item 5), explicit teaching of grammar (item 6), spoken interactions or dialogues in class (item 11), pronunciation emphasis (item 14), ludic-recreational classes (item 17), personalized classes (item 22), centered-in- everyday-situation classes (item 23), American and British English-type classes (item 29), speaking and listening skills (item 30), based-on-practice classes (item 39), fluency skill (item 40), innovative methodologies (item 41), speaking skill activities (item 47), oral exercises in group (item 48) and instruction with emphasis more on speaking skills than on grammar issues (item 55). The results in regards to this dimension also revealed a striking finding: 52,2% of the participants hold the belief that in English class the use of English should be 100% (item 12) and 62% of the participants also hold the belief that in English class you can resort to Spanish (item 13). Since the results related to these two items (12 and 13) seem to be contradictory a firm conclusion cannot be drawn in relation to this issue and a call for further research on these beliefs is raised.

Furthermore, the reported participants' beliefs lead to conclude that the majority of the participants endorse five of the six beliefs comprising the

Teacher's Role/ Profile dimension identified through expert judgment. Specifically, the participants bestow great importance to having demanding English teachers (item 49), with overseas experiences in English speaking countries (item 35), who correct their students when necessary (item 54), who teach their students on how to learn (item 57), as well as the importance to establishing a good interrelationship teacher-student in class to learn English (item 33). Interestingly, the only belief, of the six shaping this dimension, on which the participants showed disagreement was that English teachers should be from an English-speaking country (item 21). The findings in regards to item 21 suggest that the majority of the participants in this study are glad to have classes with local teachers, and thus provide support to the involvement of Colombian English teachers in tertiary Education in Colombia.

As for the participants' beliefs related to the dimension labeled as Learning Aptitude and Difficulty, it can be concluded that the majority of the involved learners hold four of the five beliefs shaping this dimension. Precisely, the participants generally agree that it is very difficult to learn English in a Spanish-speaking country (item 31), old people have more difficulties (than young people) when learning English (item 43), English pronunciation is difficult (item 45) and Learning English is easier for some people than for others (item 53). Interestingly, there were more participants in this sample who generally disagree with the belief that English is a difficult language (item 32), which may suggest that they have positive attitude towardss the learning process of this language.

From the description of the participants' beliefs it can be concluded that the participants' generally disagreement response frequency ("Strongly disagree" and "Disagree" response options combined) surpassed the participants' generally agreement response frequency ("Strongly agree" and "Agree" response options combined) on the six beliefs shaping the Motivation and Expectations dimension identified through expert judgment. In consequence, these results lead to conclude that the participants in this study hold the beliefs that to learn English it is necessary to show attitude and interest to achieve it (item 7), it is important to learn English (item 16), British English is better than American English (item 25), pronunciation is more important than accent (item 26), the English teacher must motivate their students to learn the language (item 38) and that when there is a will to learn English there is a way to do it, i.e. when you want to learn English you can learn it (item 52). In regards to item 25 it is important to note that, although the participants' agreement response frequency surpassed the participants' disagreement response frequency, the majority of the sample (56,8%) reported a neutral position (they neither agreed nor disagreed). This fact leads to be careful at the time of drawing a firm conclusion on the results related to item 25 and raises the need for further research on it.

Finally, in regards to the four items (items 15, 19, 36, and 42) shaping the COBALTALI that were classified neither in any of the six dimensions targeted above nor in any other different dimension by the expert panel, it can be

concluded that the participants in this study endorse three of these four beliefs (items 15, 36 and 42). Concretely, they hold they beliefs that to learn English it is necessary to have different resources or classroom materials, such as books, CDs, audiovisual aids and technological aids (item 15), English teaching should be integrated into the teaching of other subjects (item 36) and that to learn English it is necessary to have a tutor or teacher (item 42). In regards to item 19 (to learn English it is necessary to know about English-speaking countries) the participants' description revealed that although their general agreement response frequency surpassed the general disagreement response frequency, the neutral position response frequency exceeded them: 43,2% of the participants neither agreed nor disagreed with this belief whereas 36,6% generally agreed and 20% generally disagreed. The results pertaining to item 19 suggest that there are many participants in the study who do not feel reliance on cultural information of English speaking countries to learn English and therefore feel indifferent whether such information is or not addressed in English classes. Furthermore, in view of the fact that the participants' neutral position response frequency towardss this belief eclipsed the other response frequencies, further research on this belief should be undertaken.

Overall, it can be said from the findings on the participants' beliefs about English language learning and teaching that these learners generally agree with most of the beliefs outlined through the items shaping the COBALTALI.

Furthermore, the third objective of this study was reached as planned: the exploration of the relationship between the participants' English language teaching and learning beliefs and the gender, English level, socioeconomic stratum and age variables. As for the gender variable, the results indicated that this independent variable did not exert any considerable effect on the participants' English language teaching and learning. That is, the scores (response frequency) of the male and female participants were not significantly different from each other. It is pertinent to recall that the interpretation of these results were based on a Student's t test for independent samples performed to the four empirical factors, labeled as Teaching Methods/ Approaches, Learning Strategies and Activities, Learning Aptitude and Difficulty, and Teacher's Role/ Profile, abstracted to the items comprising the COBALTALI. With regard to the English level variable, the results, based on ANOVA analyses revealed that, unlike the factors labeled as Teaching Methods/ Approaches, Learning Strategies and Activities and Teacher's Role/ Profile, there were significant differences in the factor labeled as Learning Aptitude and Difficulty [F (3) = 27.527, p = 0.000], concerning this variable. The detected significance differences indicated that as the learners reach higher levels of English proficiency their perception about the degree of language difficulty tend to decrease, but in women this tendency changes when they reach the B2-C1 level. On this vein, these results suggest that when greater control of the English language was achieved by female English language learners, their beliefs concerning the Learning Aptitude and Difficulty dimension, unlike those held by the other learners integrating the sample were stabilized (the female

participants' responses on the items shaping the factor labeled as Learning Aptitude and Difficulty did not show the observed male participants' tendency towardss a total disagreement response option). Regarding the socioeconomic stratum variable, the results of this study revealed that this variable did not play any important role on the participants' beliefs about English language teaching and learning. Again, note that the interpretation of these results is based on a *one-way ANOVA analysis,* which dealt with a comparison of means, performed to the four empirical factors abovementioned. With respect to the age variable, the Pearson's correlation coefficient indicated that the participants' age did not represent any statistically important effect on the participants' beliefs about English language teaching and learning. One explanation of the results pertaining to this variable (age) could be the lack of age variability: the participants' ages were mainly in the range of 18 to 19 years (with a mean age of 20.9 years). Thereby, further research, with more age variability is called to corroborate these findings. Overall, the abovementioned results constitute an important contribution to the investigation of beliefs about English language teaching and learning in Colombia.

7.2. UNIQUENESS OF THE STUDY

The uniqueness of this study lies in its three main objectives and is outlined in this section of the dissertation on the basis of them. It is recalled that the first purpose of this study was to develop and validate an inventory that can be

used to examine beliefs Colombian university students hold about English language teaching and learning; the second was to describe the beliefs Colombian university students of English, who are pursuing different university programs, hold about English language teaching and learning; and the third was to determine whether gender, English level, socioeconomic stratum, and age variables affect learners' beliefs about English language teaching and learning.

As for the first purpose, the current study has three aspects of uniqueness. First, this is the first study undertaken in Colombia with the purpose of developing and validating a language research instrument with rigorous psychometric properties, intended to examine students' beliefs about English language learning and teaching. Indeed, Colombia did not count on a survey, questionnaire or inventory developed specifically to systematically explore the most latent Colombian students' beliefs about English language learning and teaching as the COBALTALI is intended to do. Presumably, the existence of the COBALTALI will foster research on language learning beliefs in Colombia. Consistent with common wisdom, when researchers have the tools for their investigations they feel more encouraged undertaking them.

Second, it can be said that another aspect of uniqueness of this study is that the instrument developed (COBALTALI) addresses beliefs about English language learning and teaching that other instruments of this nature do not address, as it is the case of Horwitz's (1987) Beliefs About Language Learning

Inventory (BALLI), which is one of the most widely employed language learning belief instrument. For example, Horwitz's (1987) BALLI, which was an instrument developed more than thirty years ago and thought for students with very different sociocultural characteristics from those in Colombia, does not deal with beliefs such as "las actividades competitivas en clase estimulan el interés del estudiante por el aprendizaje del ingles", "es importante que el docente enseñe al estudiante cómo aprender", among others, as the COBALTALI does. Besides, there is a high degree of certainty that the beliefs addressed in the COBALTALI are those that concern the most for the Colombian university students learning English because such beliefs were provided by Colombian university students. Hence, it can be said that the COBALTALI is currently the most sensitive language instrument to the actual Colombian context. From the above, it is clear that the instrument developed in this study (COBALTALI) is unique in the sense that it allows to explore beliefs about English language learning and teaching that other existing instruments with this purpose do not address.

Third, the inductive approach performed in the belief-item generation process undertaken to develop the target instrument (COBALTALI) also contributes to the uniqueness of this instrument. To generate the 57 items for the COBALTALI, instead of drawing on a deductive approach (Hinkin, 1998), which is the common procedure previous language belief instruments have adopted (see literature review), it was decided to survey a substantial sample of the population (249 Colombian university students) to which the COBALTALI was

intended to be further administered. It was opted for this item generation procedure (inductive) because it sounded as the most adequate method of capturing the most latent beliefs Colombian students held about language learning and teaching, which was one of the main objective of this study.

As for the second purpose – the description of the beliefs Colombian university students of English, who are pursuing different university programs, hold about English language teaching and learning – the current study is unique in such description, in regards to where it took place. This is the first study undertaken in Bogotá, Colombia, with the purpose of providing a systematic description of a wide range of beliefs a substantial number of Colombian university students (563 participants), who are learning English as foreign language in Colombia, hold about English language teaching and learning. Certainly, as noted earlier, with the exception of Schulz's (2001) study focused on grammar issues, there is an absence of published studies in mainstream literature about Colombian university learners' beliefs about English language teaching and learning.

As for the third purpose – the examination of whether gender, English level, socioeconomic stratum, and age variables affect learners' beliefs about English language teaching and learning – the current study is unique in such examination. This is the first study undertaken in Colombia with the purpose of exploring to what extent independent variables such as gender, English level, socioeconomic stratum and age affect learners' beliefs about English language teaching and learning. The insight gained into this exploration can be seen as

an important contribution to the literature focused on the field of Colombian English language education.

From the above, it is evident that this study presents facets that turn it into a unique project. Such uniqueness can be observed not only in the issues concerning the development and validation of the COBALTALI, but also in issues pertaining to its methodological design and the findings obtained. After addressing the singularity of this study it is time to move towardss the implications of its findings. The following section is conceived for that purpose.

7.3. THE IMPLICATIONS OF THE FINDINGS AND RECOMMENDATIONS

This part of the study is dedicated to point out the most remarkable implications of its findings. First, the most remarkable pedagogical implications of the findings in regards to the description of the beliefs about English language learning and teaching reported by the participants in the pilot testing stage of this study are addressed. Then, some implications and recommendations for the use of the COBALTALI are pointed out.

7.3.1. PEDAGOGICAL IMPLICATIONS AND RECOMMENDATIONS OF THE FINDINGS

This section is devoted to outline the most notable pedagogical implications of the findings in this study, along with some recommendations. To start with, given that the results of this study revealed that 91.1% of the participants endorsed the belief that “Escuchar música en inglés favorece el aprendizaje de la lengua inglesa” (item 2), and that 85.3% of the participants embraced the belief that “Cantar en inglés favorece el aprendizaje del ingles” (item 56), it is clear that music plays an important role in the English learning process of these participants. Consequently, there is a call for English teachers to include listening and singing activities enlivened by songs in English in their classes. By doing so, the students are likely to be more encouraged in the learning process in the classroom.

In view of the fact that the results revealed that 89.7 % of the participants held the belief that “en clase de inglés se debe enfatizar el aprendizaje de vocabulario” (item 3), and given that vocabulary improvement is an issue of paramount importance in the learning process of a language as English, teachers are recommended to devote part of their class instruction to provide the students with the opportunity to enhance their vocabulary in English. However, it is important to note that the scope of the results of this study does not provide evidence of how to address vocabulary in class, since the data collection instrument used for this purpose of the study is not an open questionnaire. Therefore, there is a call for further research to explore the way or methods students are interested in dealing with vocabulary learning process.

In light of the results of this study, which revealed that 86.5% of the participants endorsed the idea that “las actividades audiovisuales son importantes para el aprendizaje del inglés” (item 4), the obvious recommendation for English teachers is to include audiovisual workshops in their class instruction. With such inclusion students will probably have a more positive attitude towardss the class and their English learning process.

Given that most of the participants in this study (90,8%) endorsed the belief that “la enseñanza del inglés debe ser didáctica” (item 4), there is a call for teaching specialists and teachers to link theory pertaining to techniques and teaching methods on language with practice or classroom instruction. This finding may in turn entail the need for teachers not only with a suitable command of the target language but also with a qualified background on language didactics.

Considering that 82.8% of the participants in this study support the belief that "para el aprendizaje del inglés es importante la enseñanza explícita de la gramática”, it is therefore expected to have more motivated and satisfied students when their classes include explicit teaching of the English grammar. Hence, teachers and language policy makers of university institutions are advised to consider these students’ belief when planning and making decisions on the way of dealing with the teaching of grammar in the courses offered in this type of institutions. In this respect, Ming (2012) points out that “la

gramática, vilipendiada y condenada por muchos profesores y alumnos a lo largo del tiempo como una traba al aprendizaje, consiste en parte indisociable de la lengua, que se puede enseñar de forma implícita o explícita, pero jamás optarse a no enseñar" (p. 122). Likewise, it may be worth noting that there are some studies that, although their research results are not certainly expected to be extrapolated, have provided some evidence to suggest that the explicit teaching of grammar is beneficial for the learning of a second (foreign) language (Cameron, 2001; Hurrell, 1999; Long, 1983; Low et al., 1995; Pica, 1983; Pienemann, 1989; Spada, 1987; Swain and Lapkin, 1998). Furthermore, it will be a challenge for future research to explore more about the teaching and learning of grammar within the Colombian university context.

In view of the fact that 95.6% of the participants in this study embrace the belief that "para aprender inglés se necesita de interés/actitud para lograrlo", it is a challenge for teachers to feed or enhance learners' interest in English learning. One possible way of achieving it is by paying attention to or attending the beliefs reported by them in this study. However, there is a call for future research to explore how teachers and other actors in the English learning process can help enhance learners' interest in this issue.

By virtue of the fact that 81.2% of the participants in this study embrace the belief that "aprender inglés es más fácil si se hace desde niño", which is congruent with the results of some studies on this issue (Brown, 1994; Gawi, 2012; Newport, 1990; Penfield, 1967; Snow, 1993; Taylor & Taylor, 1990;),

there is a need for establishing language workshops and seminars looking at how to make students conscious of the fact that other variables, apart from the age factor, such as explicit instruction, motivation, attitude, ultimate attainment, length of exposure, significant exposure and maturation effects, play other important roles in language learning. In this respect, for example, Muñoz (2010), in a study undertaken with Spanish-Catalan bilingual learners from state-funded schools, evidences that "the explicit instruction provided by the classroom favours explicit language learning, at which older learners are superior because of their greater cognitive maturity" (p. 46). Furthermore, Muñoz (2010), pointing out that there exist important differences between the naturalistic language learning settings and formal learning contexts or instructed foreign language learning, argues that "the general opinion concerning the age at which children should begin learning a foreign language in schools is strongly influenced by findings obtained in naturalistic language learning settings" (p. 40), and that "research findings from naturalistic learning contexts have been somehow hastily generalized to formal learning contexts and the results of classroom research have been interpreted in the light of the assumptions and priorities of the former" (p. 39). From the above, it is recommended to be cautious at the time of making generalizations from the studies on the parallelism between age effects in a naturalistic language learning context and in an instructed language learning context. Likewise, the findings in this study call for more studies intended to provide relevant empirical evidence on the way the age factor affects language learning, as well

as for informative workshops and seminars aimed at showing how the role of other variables can outperform the role of the age variable.

Owing to the fact that 86.3% of the participants in this study hold the belief that “para aprender inglés es necesario dedicarle tiempo todos, o casi todos, los días” (item 9), English teachers are recommended to drive their students to useful and motivating extra classroom language learning activities, apart from those performed in the classroom. This recommendation lays on the fact that most of the English learners in Colombian universities do not have the chance of receiving English classes every day and if they consider necessary to practice English every day, their motivation may be affected by this class frequency.

Since most of the participants in this study endorse the belief “para aprender inglés es necesario practicar la habilidad de escucha” (item 10; 95.9%), the belief “Las clases de inglés deben basarse en interacciones habladas o diálogos” (ítem 11; 83.1%), the belief “para aprender inglés es importante hacer ejercicios de lecturas en inglés” (ítem 18; 89%), and the belief “en clase de inglés es importante realizar ejercicios de escritura” (ítem 28; 92.2%) it is reasonable to think that English learners of these Colombian universities expect to have classes in which the four macro communicative skills (listening, speaking, reading and writing) be developed with relatively balanced emphasis. Therefore, it is recommended that English teachers try to work on the four macro communicative skills in each English class. By doing so,

teachers are probably meeting learners' perspectives, and thus boosting their motivation and interest towardss the learning process.

In considering the results of this study in which the participants seem not to have a consensual opinion about items 12 (En clase de inglés se debe hablar un 100% en ingles; 52.2% either strongly agreed or agreed) and item 13 (En clase de inglés se puede recurrir al español; 62% either strongly agreed or agreed) it is advisable that English teachers and language policy makers hold informative talks or seminars aimed at showing, in the light of research and empirical evidences, the advantages and disadvantages of developing class instruction 100% in English as well as with the help of the L1 (Spanish in this case). In this respect, an overview of research suggesting that "first language can be a facilitating factor and not just an interfering factor" (Brown, 2000, p.68) could shed light on this purpose, including studies undertaken by Schweers, 1999; Larsen-Freeman, 2000; Nation, 2003; Butzkamm, 2003, to name a few. On this vein, it is also advisable that English teachers undertake metalinguistic discussions with their students on how to leverage their pupils' full linguistic repertoire (translanguaging) to learn English (for a broad understanding of translanguaging see Canagarajah, 2011; Cook, 1999; García, 2008; and García & Li Wei, 2014). By doing so, learners will probably take the most out of class instruction 100% in English as well as with the help of the L1.

In view of the fact that the participants in this study confer a great deal of importance to pronunciation, as it was evidenced with the results in item 14 (El profesor de inglés debe enfatizar mucho en la pronunciación; 94.1% either strongly agreed or agreed), it sounds reasonable to expect that English learners in these Colombian universities feel motivated when pronunciation activities are carried out in class. Hence, it is recommended that English teachers include pronunciation workshops in their classes.

Since 89.7% of the participants in this study endorse the belief "para aprender inglés es necesario contar con diversos recursos o materiales de clase (libros, Cds, ayudas audiovisuales, ayudas tecnológicas, etc." (item 15), it seems valid to expect more enthusiastic learners in classes enlivened by audiovisual technological resources. On this vein, English teachers are advocated to include audiovisual technological resources in order to boost learners' interest in the class and thus in the learning process.

Owing to the fact that 91% of the subjects in this study hold the belief that "la enseñanza del inglés debe ser lúdica" (item 17), the first implication on this issue can be the acceptance of professional teachers to embrace ludic pedagogy as another strategy to create rich learning environments for English learners in Colombian universities. It, in turn, may imply that teachers be either pre-equipped with ludic knowledge on language teaching and learning (such as games, role plays, etc.) or be open and eager to develop playful/fun/game-like environment as the course proceeds. To implement ludic pedagogy teachers

need to cultivate a willingness to turn the classroom environment into a playful/fun/game-like setting in which the center of the learning experience must be all the students. Thereby, English teachers of the participating Colombian universities are recommended to actively explore, adapt and include ludic activities in their classes in order to make students' learning process a more enjoyable and, probably, successful experience.

In considering that 85.4% of the participants in this study hold the belief that "la enseñanza del inglés debe ser más práctica que teórica" (item 39), it is reasonable to think that these students are more receptive to the classroom activities in which the target language practice plays a central role than in those focused on learning English through the theory that is behind it. This could imply that these learners are more delighted when in class the English teacher devotes less time to complex explanations or theoretical issues of the language and allocates more time to allow them to practice more. Thereby, it is recommended that the English teachers of these participants both keep in mind this learners' belief and assess, when planning their classes, whether they confer more importance to practice than to theory in their teaching process. If they conclude that they confer more importance to theory, it is then suggested that they bear in mind that learners' motivation may be affected by this aspect. It should be noted, however, that the scopes of this study do not provide evidence to state that the English learning process is better when teachers devote more time to practical classes than to theoretical ones, or viceversa. Presumably, there are moments in the English class that teachers

have compelling reasons to dedicate more time to theoretical issues than to practical ones, and therefore they have to proceed accordingly.

By virtue of the fact that 85.9% of the participants in this study embrace the belief that “en clase de inglés las actividades orales en grupo facilitan el aprendizaje” (item 48), it seems justifiable to say that English learners of Colombian universities feel comfortable with teachers who advocate for oral activities in group. In turns, it implies that these learners also consider their classmates as “useful actors” in the English learning process in class. Consequently, it is advisable that English teachers create opportunities in the classroom for English learners of Colombian universities to participate in oral activities in group.

Owing to the fact that 85.8% of the participants endorsed the belief that “las actividades competitivas en clase estimulan el interés del estudiante por el aprendizaje del ingles” (item 50), it seems proper to say that English teachers, in university settings, should not restrain from holding competitive activities in the classroom in order to create an enjoyable environment. In other words, competition as English learning activities in universities can be seen as useful strategies to boost learners’ motivation in the English learning process. Hence, English teachers of Colombian universities are advised to use competitive activities as additional strategies to enliven their English classes. However, it is recommended to explore, in advance, what kind of competitive activities

those students approve the most, given that the scope of this study was not intended to provide such information.

In view of the fact that 95.7% of the subjects in this study hold the belief that “un profesor de inglés debe corregir al estudiante en el momento que sea necesario”, it could be inferred that English learners of Colombian universities prefer accuracy to fluency. However, it is pertinent to note that 95,1% of the participants also endorsed the belief that “se debería procurar en que el alumno desarrolle fluidez en el idioma ingles” (item 40), which seems contradictory to the previous finding. These findings can have some pedagogical implications. First, in English programs aimed at enhancing learners’ oral fluency, if teachers want to meet students’ perspectives on this issue, that is, correcting him/her when necessary, they will be obliged to draw on creative strategies to both please the student on this opinion (belief) and avoid hampering his/her fluency while performing the correction, which can be a very difficult challenge to overcome. On the other hand, in English programs whose students have already reached a good level of fluency and whose main objective is to improve learners’ proficiency concerning language accuracy, such as grammar issues, English teachers are suggested to please the students by correcting them when they make mistakes and, in turns, help learners improve precision through timely correction.

In considering that 82.6% of the participants in this study embrace the belief that “los ejercicios de repetición favorecen el aprendizaje del inglés” (item 51),

it can be said that these findings confirm the importance of repetitions as a means of foreign language learning. The fact that these participants advocate for repetition as important exercises to promote English learning has important pedagogical implications. Essentially, it suggests that students should be provided with opportunities for repetitions in the classroom. On this vein, two pivotal questions arise: first, concerning the types of repetitions that should be incorporated in class and, second, pertaining the way repetitions should be incorporated in the classroom. In the literature on language learning repetitions the most prominent types of repetitions are repeating what is said by oneself (same-speaker), repeating what is uttered by another speaker (second-speaker repetition), exact repetition, repetition with variation, and paraphrase (Bennett-Kastor, 1994; Cook, 1994; Rieger, 2003). Thereby, a call for further research intended to elucidate these two questions is added in this project. Meanwhile, one possibility is to perform workshops, led by the teachers, with the different types of repetitions, in order to see which are the most appropriate for those students.

Owing to the fact that the majority of the participants either generally disagreed or held a neutral position (neither agreed nor disagreed) in regards to the belief that “los profesores de inglés deben ser de un país de habla inglesa” (item 21), the belief that el inglés es un idioma difícil de aprender (item 32) and the belief that “para aprender inglés es necesario saber acerca de los países de habla inglesa” (item 19) it seems proper to say that that the majority of these participants are motivated and excited about learning English in Colombia with

Colombian teachers. These results also suggest that the majority of these participants do not feel the need of knowing much about the English culture in order to learn English. These evidences lend support to the involvement of both local English teachers in tertiary Education in Colombia and information about the local culture.

Finally, through the analysis of the findings concerning item 57, in which 87.9% of the participants revealed that they endorsed the belief “es importante que el docente enseñe al estudiante cómo aprender”, it is clear that most of these participants are not only interested in learning the target language but also in knowing how to learn such language. That is, they also admit the need of knowing/learning strategies to learn the target language (English), in other words, they recognize the importance of developing the competence of “learning how to learn”. These findings have important pedagogical implications. Fundamentally, it suggests that English teachers should be equipped with knowledge that allows them to explicitly talk with their students about how they must drive, regulate and enhance their own learning process. It, of course, implies that such teachers must know internal factors of their students, including their prior knowledge, experiences, motivations, interests, socio-cultural context, etc. When a teacher knows his/her students it is easier for them to guide these learners not only to plan, monitor and evaluate their learning behavior, but also to help them make adequate powers of their success or failure. Furthermore, these findings suggest that there should be a space (or moment) in the class instruction to teach the students how to learn

the target language. This, in turns, implies a reestablishment of the curricular structure, including the objectives and purposes of the course, the contents, methods and methodological principles, forms of organization (how to organize the teaching and learning), and learning assessment (to what extent the objectives are met). Overall, the findings addressed concerning the last item comprising the COBALTALI (item 57) have serious pedagogical implications.

So far, for the sake of situating the above, it is highlighted that the most prominent pedagogical implications of the findings pertaining to the description of the beliefs about English language learning and teaching reported by the participants in the Participants' Belief Description Stage of this study were addressed above. Now, it is time to point out the most remarkable implications of the findings pertaining to the development of the language belief research instrument, called COBALTALI.

7.3.2. IMPLICATIONS AND RECOMMENDATIONS FOR THE USE OF THE COBALTALI

The previous section was dedicated to point out the most remarkable pedagogical implications and recommendations of the findings concerning the description performed of the participants' beliefs about English language learning and teaching. This section is then devoted to outline the most noticeable implications and recommendations of the findings concerning the

development of the Colombian Beliefs about Language Learning and Teaching Inventory (COBALTALI).

To start with, it should be recalled that the Colombian Beliefs about Language Learning and Teaching Inventory – COBALTALI – was developed to examine university learners' beliefs about English language teaching and learning. In order for the COBALTALI to exhibit evidences of validity and reliability technical qualities, it was subjected to rigorous refinement procedures and assessment stages, including items' representativeness to the construct under investigation, items' cultural sensitivity, items' clarity and readability properties, technical quality of each section of the COBALTALI, and identification of the instrument dimensionality. Such assessment can be grouped into two frameworks or approaches: a qualitative approach, which was highly characterized by the use of expert panel's judgment, and a quantitative approach, which was mediated by the use of statistical tools widely used by researchers in scale development.

Having recalled some aspects of the COBALTALI, it is the opportunity to move towardss the implications and recommendations of the results concerning that instrument, which turn around its use for further research.

First, through the multi-stage process (widely used by researchers in scale development) adopted in this study to develop the COBALTALI and estimate its technical quality, it was demonstrated that this measurement instrument

serves as a reliable and valid tool with which to describe the degree to which their students agree on a group of beliefs about English language teaching and learning. Therefore, practitioners can use the COBALTALI with both the confidence of knowing that this instrument has been developed through the incorporation of rigorous validity and reliability standards widely used by researchers in scale development and with the clarity that future research is crucial to corroborate or contradict the validity and reliability conclusions presented in this study. Hence, there is a call for future research to assess the validity and reliability technical qualities of the COBALTALI with other samples.

Second, the COBALTALI can be easily used in Colombian university settings by English teachers and language policy makers interested in knowing the degree to which their students agree on a group of beliefs about English language teaching and learning. Although the COBALTALI was conceived to be used in Colombian university settings, the items comprising the COBALTALI have been worded in a way that can easily be understood not only by university students but also by high school students in Colombia. On this vein, English teachers are encouraged to use the COBALTALI with university and high school students.

Third, according to the qualitative approach – characterized by the use of expert judgment – adopted in this study to develop the target instrument, the data gathered with the COBALTALI provides information concerning six facets of beliefs about English language teaching and learning: Learning Context,

Teacher's Role/ Profile, Motivation and Expectations, Learning Strategies and Activities, Teaching Methods/Approaches, and Learning Aptitude and Difficulty. However, it is important to bear in mind that according to that expert panel's judgment, only 53 items - out of 57 items comprising the COBALTALI - were identified as clearly corresponding to one of the aforementioned six macro domains. It should be recalled that 4 items (Item 15, 19, 36, and 42), were included in the COBALTALI but excluded as pertaining to one of these six scales, according to the expert assessment on such items. These results have implications for the use of the COBALTALI in other research. Essentially, it implies that practitioners, interested in adopting the COBALTALI as the research instrument, should not take for granted that all the 57 items comprising the COBALTALI correspond to one of the six macro domains mentioned above. As noted earlier, there are 4 items out of 57 items comprising the COBALTALI, whose domains have not been identified yet. In view of this fact, there is a call for future research to attempt to determine the domain of such "problematic" items.

Fourth, according to the results obtained through the different factor analyses (exploratory and confirmatory factor analyses) which the data gathered in the pilot testing stage was subjected to, the best factorial solution to interpret the data was a four-factor solution. It is important to bear in mind that for this four-factor solution six items (7, 25, 26, 27, 37 and 55) were excluded because they did not show favorable factor loadings. The four extracted factors were labeled based on a semantic analysis of the items made by the researcher as

Teaching methods/approaches (with 18 items), Learning strategies and activities (containing 17 items), Learning aptitude and difficulty, (with 10 items) and Teacher's role/ profile (with 6 items). Broadly speaking, these results indicate that, from a statistical framework, the observed variables (or factors) labeled as Teaching methods/approaches, Learning strategies and activities, Learning aptitude and difficulty, and Teacher's role/ profile can measure the latent variable under study, labeled as learners' beliefs about language teaching and learning. These results also have implications for the use of the COBALTALI in other research. When using the COBALTALI it is important not to assume the four factor solution adopted in this study, as well as the labeling of such factors, as characteristics of this instrument, because such solution and labeling are grounded on or depend on the data analyzed and not on the instrument itself. Indeed, it is possible that with a new set of data analyzed via factor analysis a different number of factors can emerge as suitable. Furthermore, it should be pointed out that factor findings based on factor analysis are inherently subjective in nature. For example the decisions concerning factor extraction, rotation, and interpretation from one study to another can drive to different outcomes (Buehl et al., 2002). Hence, it is advised that further research validate the factor solution adopted in this study with the 57 items comprising the COBALTALI and a new set of data.

Overall, this section as well as the previous one outlined the most noticeable implications of the study. Such implications turned around both the results regarding the description of the beliefs about English language learning and

teaching reported by the participants in the Participants' Belief Description Stage of this study and the use the COBALTALI for further research. By doing so, some recommendations were conveyed. Now, it is time to move towardss the last section of this chapter: the limitations of the study.

7.4. LIMITATION OF THE STUDY

As has been pointed out above, this study pursues three broad purposes: 1) to develop and validate an inventory to study beliefs Colombian university students hold about English language teaching and learning; 2) to describe beliefs university students hold about English language teaching and learning; and 3) to determine whether gender, English level, socioeconomic stratum, and age affect learners' beliefs about English language teaching and learning. The attainment of such presented some potential limitations that should be kept in mind when interpreting the findings, which will be addressed below.

The restrictions pertaining to the development and validation of the inventory – COBALTALI – lie in the following four issues:

1. Throughout the methodological stages of this study evidences concerning the reliability and validity properties of the COBALTALI were accumulated. Such cumulative evidences indicated that the COBALTALI exhibited high/moderate content and construct validity properties, as

well as moderate internal consistency and stability reliability qualities. However, as literature focused on research instruments often warns “a previously validated instrument does not necessarily mean it is valid in another time, culture or context" (Gjersing, Caplehorn, & Clausen; 2010, p. 1). Thereby, the validity and reliability evidences of the COBALTALI cannot be extrapolated in further research.

2. Although attempts were made in this study to identify the dimensionality of all the 57 items comprising the COBALTALI through content expert judgment, there were four of those items (15, 19, 36, and 42) whose dimensionality has not been identified with accuracy. Hence, there is a call for further research to drive efforts to help on this mission.

3. In the first stage, the generation of items for the development of the inventory, 249 undergraduate students from 4 Colombian universities, who were studying English, were administered a survey with the objective of gathering their beliefs about English language learning and teaching. The criteria to define the sample were a) the universities from Bogotá which allowed the researcher to collect the data in their facilities and b) the students from these universities who voluntarily agreed to participate. Consequently, it is recommended to be cautious at the time of making generalizations to larger populations based on types and number of beliefs of the findings, even if the populations belong to Colombian contexts.

4. The research instrument developed and validated in this study aims at examining the beliefs Colombian university students hold about English language learning and teaching, thus caution is required when attempting to both study students' beliefs about other languages with this instrument and study teachers' beliefs with this tool. In this respect, it should be noted that researchers have evidenced that epistemological beliefs (beliefs about knowledge and learning) are both domain general and domain specific (Buehl et al., 2002; Hofer, 2000; Muis, Bendixen, & Haerle, 2006; Schommer-Aikins, 2002).

The potential limitations of this study regarding the interpretation of the findings about the description of the university students' English language teaching and learning beliefs lie in the following issues:

1. The use of closed item questionnaires to portray students' beliefs may restrict the number, kind and extent of their beliefs. Consequently, although the inventory used in this study consists of items-beliefs which emerged from students with relatively similar socio-cultural, linguistic and educational background conditions to the subjects in the Participants' Belief Description Stage, it is important to keep in mind that, when interpreting the findings, the belief description revealed in this study is conditioned by the nature of the research instrument used.

2. Since the number of participants in the Participants' Belief Description Stage of the study is relatively small (563), it is recommended to be cautious when pretending to make generalizations to the Colombian university students.

3. It must be noted that the accuracy and validity of the collected data in this stage are subject to the participants' responding sincerity, understanding and willingness.

4. Since the exploration of the effect gender, English level, socioeconomic status and age variables exert on the participants' learners' beliefs about English language teaching and learning was based on the four dimensions (factors) extracted through factor analysis and not on each item shaping the COBALTALI the findings of this study restrict the understanding of how these four variables affect each item of the COBALTALI.

Given the limitations of this study, addressed above, it seems reasonable to say that, without underestimating the weight of these potential constraints, they do not outweigh the benefits of the design and development of the study, as well as of the description obtained about the participants' beliefs about English language learning and teaching. That is, the significance of the study largely minimizes its potential drawbacks.

7.5. DIRECTIONS FOR FURTHER RESEARCH

Based on the findings and the limitations of the current study, the following directions are outlined for further research.

First, the current study provided primary data on the degree to which a substantial number of Colombian university students agree on a group of beliefs about English language teaching and learning, through the use of an inventory- type research instrument. Thus, further studies, intended to provide more comprehensive understanding on beliefs about English language teaching and learning of Colombian university students, should be carried out using more data collection tools such as diaries, observations, or interviews.

Second, the current study aimed at exploring the effect of individual background variables, such as age, gender, English level, and Socioeconomic Status on learners' beliefs about English language teaching and learning. Additional research on these issues is recommended to validate or contrast the results of the current study.

Third, this is the first time that the recent developed COBALTALI has been subjected to validity and reliability estimates, through qualitative and quantitative approaches. Thus, in order to verify the psychometric properties of this instrument, this study should be replicated with other Colombian students at other universities. In addition, this study can be replicated using high school

subjects to compare the similarities and differences in learners' beliefs of different academic settings.

Fourth, the findings of this study have attested to the multidimensionality of language learning beliefs through the use of the COBALTALI. For example, the results of this study revealed that most of the item-beliefs of the COBALTALI can be grouped into distinct, interpretable and independent dimensions. Likewise, these findings have shown that there are some language learning beliefs addressed by the COBALTALI whose dimensionalities are not easy to be defined. Thus, further research aimed at verifying the dimensionality of the items comprising the COBALTALI, including the dimensionality of such "problematic" items is recommended. On this vein, further empirical inquires on the dimensional structure of the COBALTALI are required to make firm conclusions on the six dimensions identified through expert judgment and the four factors extracted through factor analysis on the reported participants' beliefs.

Last but not least, a wide range of questions, concerning the beliefs held by Colombian university learners of English, should be addressed in further research, including the following three:

1. What effects do the beliefs held by the Colombian university learners of English perform on their language learning process and success?

2. Do we need to change the beliefs and attitudes of Colombian university learners of English in order to benefit their English learning process and if so, how?

3. What kind of methodologies can be incorporated in the classroom to help learners turn their “inhibitive beliefs” into “facilitative factors” of English language learning?

CHAPTER SUMMARY

This final chapter started by outlining the prominent conclusions of the study in regards to its three main objectives. The uniqueness of the study was then sketched out. After that, the implications of the study were presented and some recommendations were posed. The chapter closed by indicating some directions for further research. All things considered, this dissertation can be viewed as a contribution to the Colombian academic community focused on language education with the provision of both a validated and reliable research instrument to examine language learning beliefs and a description of a substantial number of Colombian university students' beliefs

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APPENDICES

APPENDIX A

Survey to generate the items for the COBALTALI

APPENDIX A: Survey to generate the items for the COBALTALI

Encuesta

INVENTARIO DE CREENCIAS SOBRE EL APRENDIZAJE Y LA ENSEÑANZA DEL INGLÉS

Favor diligenciar esta encuesta que consta de 3 partes (Información personal, Creencias acerca del aprendizaje del inglés y Creencias acerca de la enseñanza del inglés). Esta información será tratada de manera confidencial. Gracias por su colaboración.

I. Información personal:

Es usted:	Hombre ☐	Mujer ☐	Otro ☐		
Su edad está entre:	16 a 18 años ☐	19 a 21 años ☐	22 a 24 años ☐	25 a 27 años ☐	De 28 ó más ☐
Se encuentra cursando:	Semestre I ☐	Semestre II ☐	Semestre III ☐	Semestre IV ☐	Otro ☐
Su nivel de inglés es de:	A1 o Principiante ☐	A2 o Elemental ☐	B1 o Intermedio ☐	B2 o Intermedio alto ☐	C1 o Avanzado ☐

II. Creencias acerca del aprendizaje del inglés

A continuación encontrará una serie de áreas o temáticas en las cuales existen creencias o ideas sobre el **aprendizaje** del inglés. En el ***Área 1*** encontrará una opinión, creencia o idea (a manera de ejemplo) que algunas personas tienen sobre el **APRENDIZAJE** del inglés. Favor escribir el mayor número de opiniones, creencias o ideas que usted considera existen sobre el **APRENDIZAJE** del inglés, teniendo en cuenta el área, sin importar si esas opiniones o creencias son correctas o incorrectas.

Área 1: ROL DEL APRENDIZ
Creencia 1: "El estudiante debe ser activo al inicio de clase y pasivo al final de la clase" (creencia inventada a manera de ejemplo)

- _____
- _____
- _____
- _____
- _____
- _____

Encuesta. Continuación de ***Creencias acerca del aprendizaje del inglés***

Área 2: AMBIENTE DE APRENDIZAJE

- _____
- _____
- _____
- _____
- _____
- _____

Área 3: : RECURSOS DE APRENDIZAJE

- _____
- _____
- _____
- _____
- _____
- _____

Área 4: MOTIVACIÓN

- _____
- _____
- _____
- _____
- _____
- _____
- _____

Área 5: MACROHABILIDADES COMUNICATIVAS (HABLAR, LEER, ESCUCHAR, ESCRIBIR)

- _____
- _____
- _____
- _____
- _____
- _____

Continuar en la página 3

Encuesta. Continuación de ***Creencias acerca del aprendizaje del inglés***

Área 6: GÉNERO Y EDAD

- _____
- _____
- _____
- _____
- _____

Área 7: CONDICIONES ECONÓMICAS

- _____
- _____
- _____
- _____
- _____

Área 8: EXPERIENCIAS EN EL APRENDIZAJE

- _____
- _____
- _____
- _____
- _____
- _____

Área 9: CURRÍCULO Y EVALUACIÓN

- _____
- _____
- _____
- _____
- _____
- _____

Continuar en la página 4

Encuesta. **III Creencias acerca de la *enseñanza* del inglés**

A continuación encontrará una serie de áreas o temáticas en las cuales existen creencias o ideas sobre la **ENSEÑANZA** del inglés. En el ***Área 1*** encontrará una opinión, creencia o idea (a manera de ejemplo) que algunas personas tienen sobre la **ENSEÑANZA** del inglés. Favor escribir el mayor número de opiniones, creencias o ideas que usted considera existen sobre la **ENSENANZA** del inglés, teniendo en cuenta el área, sin importar si esas opiniones o creencias son correctas o incorrectas.

Área 1: PERFIL Y ROL DEL DOCENTE

Creencia 1: "El docente de inglés debe tener formación en sicología y lingüística" (creencia inventada a manera de ejemplo)

- _____
- _____
- _____
- _____
- _____

Área 2: : AMBIENTE DE ENSEÑANZA

- _____
- _____
- _____
- _____
- _____

Área 3: ENFOQUES PEDAGÓGICOS (METODOLOGÍAS)

- _____
- _____
- _____
- _____
- _____
- _____

Área 4: RECURSOS DE ENSEÑANZA

- _____
- _____
- _____
- _____
- _____

4

APPENDIX B

Survey to content assess the items for the COBALTALI

Since this survey comprises 68 pages, in this part of the dissertation it is presented a sample of such survey. The whole survey is presented in a document and a CD attached to this Thesis document.

Bogotá, febrero __ de 20__

Doctora:

_____

Universidad _____

Mi nombre es José Marín, estudiante del Doctorado en Lingüística Aplicada en la Universidad Autónoma de Madrid en España. Actualmente estoy realizando mi tesis doctoral denominada *Development and Validation of the Colombian Beliefs about Language Teaching and Learning Inventory* (COBALTALI). Cordialmente me dirijo a Usted con el fin de solicitar su inapreciable colaboración como experto para validar el contenido del cuestionario COBALTALI, anexo 4, el cual será aplicado a docentes de inglés. Esta actividad tomará aproximadamente una hora. Acudo a usted porque considero que sus observaciones y posibles sugerencias serán un aporte de gran utilidad para los objetivos de este proyecto. Su aporte como validador se manejará de forma confidencial y anónima, si así lo prefiere.

Antes de empezar el proceso de validación de contenido, es importante leer cuidadosamente los documentos: Anexos 1 **"Características del instrumento",** Anexo 2 **"Contextualización, Instrucciones y Planilla",** Anexo 3 **Encuesta.** Se agradece cualquier sugerencia que considere relevante para el mejoramiento de este instrumento.

Gracias de antemano por aportar a este proyecto.

José Marín Juanías

Doctor en Lingüística Aplicada (c)

ANEXO 1

CARACTERÍSTICAS DEL INSTRUMENTO

Nombre del instrumento: Colombian Beliefs about Language Teaching and Learning Inventory - COBALTALI-

Categoría: Inventario conformado por enunciados-items o reactivos de actitud

Objetivo: recolectar información correspondiente a las creencias que estudiantes tienen acerca de la enseñanza y aprendizaje del inglés en Colombia.

Area general que pretende medir el test: Creencias, que hacen parte de factores afectivos, también vistas en lingüística aplicada como representaciones, opiniones, percepciones y concepciones (Pajares, 1992).

Aplicación: Individual o colectiva

Tiempo: Duración entre 20 y 25 minutos aproximadamente

Edad: Adolescentes y adultos

Àmbitos: Educación – investigación

Procedencia de los reactivos: Los reactivos que conforman el inventario provienen de una recopilación de creencias que estudiantes universitarios expresaron en una encuesta realizada por el investigador de este proyecto.

I. CONTEXTUALIZACIÓN

Con el objetivo de diseñar y validar un cuestionario que permita recolectar información para describir y examinar las creencias que estudiantes universitarios tienen acerca de la enseñanza y el aprendizaje del inglés, se recopilaron las siguientes creencias (Anexo 3), en forma de ítems y se agruparon desde una perspectiva semántica. Luego se procedió a representar ese grupo de creencias mediante un **ítem-creencia Central** para ser incluido en el cuestionario en mención. Para cumplir con los rigores de validación de un cuestionario de estas características, es indispensable realizar un análisis de contenido, para determinar si el proceso de representación de estas creencias es apropiado. En consecuencia, solicito muy comedidamente su colaboración para la realización de dicho análisis, mediante el diligenciamiento de la presente encuesta. Esta información será tratada de manera confidencial. Cabe aclarar, que en algunos casos hay problemas en la redacción de la creencia debido a que se hizo una transcripción fiel a la redacción hecha por los estudiantes encuestados. Gracias de antemano por su colaboración.

II. INSTRUCCIONES

1. Para determinar si el ítem-creencia (expresado en minúscula) está representado o no mediante el Ítem Central (expresado en mayúscula y en color rojo) favor señalar :

   A. SI (si considera que el ítem-creencia **sí** está representado con el Ítem Central)
   B. NO (si considera que el ítem-creencia está **no** representado con el Ítem Central)

   Para indicar su respuesta, simplemente marque con una X la casilla correspondiente.

2. Algunos ítems - creencias en su redacción pueden contradecir al Ítem central, lo cual NO impide que esté incluido en ese grupo, es decir, el ítem creencia puede apoyar o no al ítem Central.

3. Favor indicar si el Ítem Central es adecuado o inadecuado con respecto al grupo de ítems-creencias señalando con una X en las casillas que se encuentran junto al Ítem Central. En caso de ser inadecuado favor sugerir uno en la línea dispuesta para sugeridos, que se encuentra donde aparece el Ítem Central.

III. PLANILLA

PLANILLA DATOS DEL EVALUADOR	
Nombre del Juez: _____	Formación Académica: _____
Profesión: _____	Fecha: _____

ENCUESTA

Item Central # 1

	Ítem Central PARA APRENDER INGLÉS ES NECESARIO IR A UN PAÍS DE HABLA INGLESA Adecuado ☐ Inadecuado ☐ Sugerido: _____	A SI representado	B NO representado
#	Ítem-creencia		
1	Comprenderlo bien, viajar a estudiarlo a un país donde lo hablen		
2	Para aprender inglés se necesita viajar a un país que hable inglés		
3	Para aprender inglés hay que salir a un país donde se practique		
4	Para aprender inglés es necesario vivir algunos meses en un país de habla inglesa		
5	Viajar a algún país de habla inglesa		
6	Para aprender inglés es necesario viajar un tiempo a algún país de habla inglesa		
7	Para aprender inglés se debe estudiar en un país donde se hable esta lengua		
8	Sólo se aprende el idioma cuando se está en el país "de cuna" en donde su idioma es el inglés		
9	Si no vivo en el país que hablan el idioma nunca lo aprenderé		
10	Para aprender inglés es mejor irse a vivir a EEUU		
11	Para aprender inglés realmente hay que vivir en un lugar nativo		
12	Irse para los Estados Unidos		
13	Para aprender inglés se debe viajar a países donde hablen este idioma		
14	Ir a países con habla inglesa		
15	El inglés sólo se aprende de manera efectiva en un país de habla inglesa		
16	Para aprender inglés es necesario hacer inmersión en otro país de habla inglesa		
17	Es necesario estudiarlo en otro país		
18	Para aprender inglés hay que viajar a otro país donde se hable esta lengua y permanecer un largo tiempo allí		
19	Para aprender inglés debes viajar a otro país, donde puedas practicarlo todo el tiempo		
20	Posiblemente viajar a otro país		
21	Es necesario realizar un viaje para poder aprender o un intercambio		
22	Es necesario viajar a un país de habla inglesa		
23	Para aprender inglés es necesario viajar a otro país		
24	Para aprender inglés es necesario radicarse en otro país		
25	No es posible conocer el idioma si no se viaja a los países que hablan esa lengua		
26	Para aprender inglés hay que viajar a otros países con este idioma		
27	Que inglés sólo se aprende viviendo en países que hablen el idioma		
28	Es necesario viajar		
29	Para aprender inglés es necesario viajar		
30	Sólo se puede aprender fuera del país		
31	Aprender inglés se debe ir a otro país para aprender		
32	Para aprender inglés es necesario viajar a un país de lengua inglesa		
33	Es necesario ir a un país de habla inglesa		
34	Para aprender a hablar inglés se debe viajar y convivir con gente de otro país de habla inglesa		
35	Para aprender inglés es necesario viajar a un país de habla inglesa		
36	Estudiar en otros países		

ENCUESTA

Ítem Central # 1

	Ítem Central PARA APRENDER INGLÉS ES NECESARIO IR A UN PAÍS DE HABLA INGLESA Adecuado ☐ Inadecuado ☐ Sugerido: _____	A SI representado	B NO representado
#	Ítem-creencia		
37	Es necesario vivir en un país de habla inglesa, por algún periodo		
38	Para aprender inglés es necesario vivir en una ciudad de habla inglesa		
39	Para aprender inglés es necesario viajar		
40	Para aprender inglés se necesita viajar a países de habla inglesa		
41	Para aprender inglés es necesario estudiar en otro país		
42	Es necesario viajar a los diferentes países de habla inglesa		
43	Para aprender debo viajar a un país de habla inglesa		
44	Tratar de visitar un país donde se hable inglés		
45	No es necesario pero es bueno ir a otro país donde el habla sea necesaria		
46	Hay que viajar a países donde se hable inglés		
46	Es necesario estar en lugares, países que hablan inglés		
48	Para aprender inglés es necesario viajar a países de habla inglesa		
49	Es necesario viajar para interactuar con personas nativas		
50	Es mejor aprender inglés en un país donde se hable		
51	Para aprender inglés correctamente es necesario salir del país, ejemplo USA		
52	Para un buen aprendizaje en lo posible viajar a un país de habla inglesa		
53	Para aprender inglés es necesario ir al país del idioma que quieres aprender		
54	Tener la experiencia de ir a un país de habla inglesa con el fin de afianzar y fortalecer conocimientos		
55	Es mejor aprenderlo fuera del país		
56	Pienso que estudiar inglés en un país donde no se practica es inútil		
57	Para aprender inglés es necesario ir a otro país		
58	Es necesario realizar un viaje para poder aprender		
59	Viajar para aprender inglés		
60	Viajar a un país de idioma inglés		
61	Es necesario ir a países para practicar		
62	En otros países tenemos más posibilidades de aprender inglés ya que con un lenguaje que mantengamos permanentemente éste se nos va quedando y lo vamos asimilando más rápido y mucho mejor		
63	Viajar a otros países a practicarlo		
64	Para aprender inglés es necesario ir al extranjero donde sólo se utiliza este idioma		
65	Irse a vivir a USA		
66	Para aprender inglés hay que conocer mínimo un país de habla inglesa		
67	Para aprender inglés es mejor hacerlo en un país de habla inglesa		
68	Para aprender inglés es necesario viajar a un país de habla inglesa		
69	También pienso que el inglés se practica y se aprende más cuando uno está en un país con idioma inglés		
70	Para aprender un idioma claro es mejor realizar cursos en países del exterior		

APPENDIX C

Survey to assess items' representativeness and cultural sensitiveness

(Date)

(Recepient)

Mi nombre es José Marín, estudiante del Doctorado en Lingüística Aplicada en la Universidad Autónoma de Madrid en España. Actualmente estoy realizando mi tesis doctoral denominada *Colombian Students' Beliefs about Language Teaching and Learning Inventory (COBALTALI): Development, Validation and Results*. Cordialmente me dirijo a Usted con el fin de solicitar su inapreciable colaboración como experto para validar el contenido del cuestionario COBALTALI, anexo 4, el cual será aplicado a estudiantes de inglés. Esta actividad tomará aproximadamente 20 minutos. Acudo a usted porque considero que sus observaciones y posibles sugerencias serán un aporte de gran utilidad para los objetivos de este proyecto. Su aporte como validador se manejará de forma confidencial y anónima, si así lo prefiere.

Antes de empezar el proceso de validación de contenido, es importante leer cuidadosamente el Anexo 1: **"Características del instrumento"**.Agradezco cualquier sugerencia que considere relevante para el mejoramiento de este instrumento.

Gracias de antemano por aportar a este proyecto.

José Marín Juanías

Doctor en Lingüística Aplicada (c)

ANEXO 1

CARACTERÍSTICAS DEL INSTRUMENTO

Nombre del instrumento: Colombian Beliefs about Language Teaching and Learning Inventory - COBALTALI-

Categoría: Inventario conformado por enunciados-items o reactivos de actitud

Objetivo: recolectar información correspondiente a las creencias que estudiantes tienen acerca de la enseñanza y aprendizaje del inglés en Colombia.

Area general que pretende medir el test: Creencias, que hacen parte de factores afectivos, también vistas en lingüística aplicada como representaciones, opiniones, percepciones y concepciones (Pajares, 1992).

Aplicación: Individual o colectiva

Tiempo: Duración entre 20 y 25 minutos aproximadamente

Edad: Adolescentes y adultos

Ámbitos: Educación – investigación

Procedencia de los reactivos: Los reactivos que conforman el inventario provienen de una recopilación de creencias que estudiantes universitarios expresaron en una encuesta realizada por el investigador de este proyecto.

ANEXO 2

INSTRUCCIONES

Señor(a) Evaluador (a)

Su ejercicio como evaluador consiste en evaluar a) el grado de representatividad de los ítems o reactivos del inventario *COBALTALI* con el constructo general bajo investigación (creencias acerca de la enseñanza y aprendizaje del inglés), y b) si alguno de los ítems que conforman el inventario *COBALTALI* presenta algún grado de *sensibilidad cultural*.

Para evaluar el grado de representatividad de los ítems del inventario *COBALTALI* con el constructo *creencias acerca de la enseñanza y aprendizaje del inglés* se presentarán los siguientes criterios: 1 = no es importante incluir este ítem en la encuesta; 2 = algo importante incluir este ítem en la encuesta, 3 = importante incluir este ítem en la encuesta, y 4 = muy importante incluir este ítem en la encuesta. Para emitir su juicio simplemente marque una **x** en la casilla donde aparece el aspecto cualitativo que usted considere que se cumple en cada criterio. Si tiene una sugerencia u observación favor expresarla en la casilla "Observación general".

Es importante resaltar que la evaluación de sensibilidad cultural de los ítems en este estudio es tratado en un sentido muy "simple": consiste simplemente en indicar si los ítems presentan un lenguaje o contenido denigrante u ofensivo a uno o más grupos o para cualquier grupo racial o étnico en particular, o si existe algún ítem que pudiera exhibir complejidad en redacción que pueda afectar su comprensión por parte de cualquier miembro o grupo de los encuestados. Para evaluar si alguno de los ítems que conforman el inventario *COBALTALI* presenta *sensibilidad cultural*, simplemente hay que indicar con un "SI" o un "NO" en la encuesta.

PLANILLA DATOS DEL EVALUADOR	
Nombre del Juez: _____	Formación Académica: _____
Profesión: _____	Fecha: _____

ENCUESTA							
#	ITEMS	REPRESENTATIVIDAD ITEM -CONSTRUCTO				¿EL ITEM PRESENTA SENSIBILIDAD CULTURAL?	
		1 No es importante incluir este ítem en la encuesta	2 Algo importante incluir este ítem en la encuesta	3 Importante incluir este ítem en la encuesta,	4 Muy importante incluir este ítem en la encuesta.	SI	NO
1	Para aprender ingles es necesario hacerlo en un pais de habla inglesa						
2	Escuchar musica en ingles favorece el aprendizaje de la lengua inglesa						
3	En clase de ingles se debe enfatizar en el aprendizaje de vocabulario						
4	Las actividades audiovisuales son importantes para el aprendizaje del ingles						
5	La enseñanza del ingles debe ser didáctica						
6	Para el aprendizaje del ingles es importante la enseñanza explicita de la gramatica						
7	Para aprender ingles se necesita de interés/actitud para lograrlo						
8	Aprender ingles es más facil si se hace desde niño						
9	Para aprender ingles es necesario dedicarle tiempo todos, o casi todos, los dias						
10	Para aprender ingles es necesario practicar la habilidad de escucha						
11	Las clases de ingles deben basarse en interacciones habladas o dialogos						
12	En clase de ingles se debe hablar un 100% en inglés						
13	En clase de ingles se puede recurrir al español						
14	El profesor de ingles debe enfatizar mucho en la pronunciación						
15	Para aprender ingles es necesario contar con diversos recursos o materiales de clase (libros, Cds, ayudas audiovisuales, ayudas tecnológicas, etc.)						
16	Es importante aprender ingles						
17	La enseñanza del ingles debe ser lúdica						
18	Para aprender ingles es importante hacer ejercicios de lecturas en ingles						
19	Para aprender ingles es necesario saber acerca de los paises de habla inglesa						
20	Para aprender ingles es necesario						

	interactuar con personas cuya lengua nativa es el inglés						
21	Los profesores de inglés deben ser de un país de habla inglesa						
22	Cuanto más personalizada sea la clase de inglés, más se aprende						
23	La enseñanza del inglés debería estar centrada en situaciones cotidianas						
24	Para aprender inglés es importante realizar trabajos extra clase						
25	Es mejor el inglés británico que el americano						
26	Es más importante la pronunciación que el acento						
27	Realizar ejercicios de traducción favorece el aprendizaje del inglés						
28	En clase de inglés es importante realizar ejercicios de escritura						
29	Se debe enseñar tanto inglés americano como británico						
30	En clase se debería enfatizar más en el desarrollo de la habilidad de habla y escucha						
31	Es muy difícil aprender inglés en un país de habla hispana						
32	El inglés es un idioma difícil de aprender						
33	Para aprender inglés es importante una buena interrelación estudiante – docente						
34	Para aprender inglés es necesario pensar en inglés						
35	Es importante que el docente de inglés haya estado en un país de habla inglesa						
36	La enseñanza del inglés se debería integrar en la enseñanza de otras asignaturas						
37	Los cursos de inglés por internet son recursos valiosos para apoyar el aprendizaje del inglés						
38	El profesor de inglés debe motivar a sus estudiantes a aprender ese idioma						
39	La enseñanza del inglés debe ser más práctica que teórica						
40	Se debería procurar en que el alumno desarrolle fluidez en el idioma inglés						
41	Se deben innovar las metodologías para la enseñanza del inglés						
42	Para aprender inglés se necesita de un tutor o profesor						
43	Las personas mayores de edad presentan mayor dificultad para aprender inglés						
44	Si no se practica el inglés se olvida						
45	La pronunciación del inglés es difícil de aprender						
46	Para aprender inglés es necesario						

	estudiarlo de manera presencial						
47	En clase de ingles se deberia hacer más énfasis en la habilidad de habla						
48	En clase de inglés las actividades orales en grupo facilitan el aprendizaje						
49	La exigencia por parte del docente al estudiante es importante para el aprendizaje del ingles						
50	Las actividades competitivas en clase estimulan el interés del estudiante por el aprendizaje del inglés						
51	Los ejercicios de repeticion favorecen el aprendizaje del inglés						
52	Cuando se quiere aprender ingles se puede						
53	El aprendizaje del inglés se le facilita más a unas personas que a otras						
54	Un profesor de inglés debe corregir al estudiante en el momento que sea necesario						
55	En clase de inglés es más importante hacer énfasis en la habilidad de habla que en la gramática						
56	Cantar en inglés favorece el aprendizaje del inglés						
57	Es importante que el docente enseñe al estudiante cómo aprender						

APPENDIX D

Survey to identify COBALTALI's dimensionality

(Date)

(Recepient)

Mi nombre es José Marín, estudiante del Doctorado en Lingüística Aplicada en la Universidad Autónoma de Madrid en España. Actualmente estoy realizando mi tesis doctoral denominada *Colombian Students' Beliefs about Language Teaching and Learning Inventory (COBALTALI): Development, Validation and Results*. Cordialmente me dirijo a Usted con el fin de solicitar su inapreciable colaboración como experto para validar el contenido del cuestionario COBALTALI, anexo 4, el cual será aplicado a estudiantes de inglés. Esta actividad tomará aproximadamente 20 minutos. Acudo a usted porque considero que sus observaciones y posibles sugerencias serán un aporte de gran utilidad para los objetivos de este proyecto. Su aporte como validador se manejará de forma confidencial y anónima, si así lo prefiere.

Antes de empezar el proceso de validación de contenido, es importante leer cuidadosamente el Anexo 1: **"Características del instrumento"**.Agradezco cualquier sugerencia que considere relevante para el mejoramiento de este instrumento.

Gracias de antemano por aportar a este proyecto.

José Marín Juanías

Doctor en Lingüística Aplicada (c)

ANEXO 1

CARACTERÍSTICAS DEL INSTRUMENTO

Nombre del instrumento: Colombian Beliefs about Language Teaching and Learning Inventory - COBALTALI-

Categoría: Inventario conformado por enunciados-items o reactivos de actitud

Objetivo: recolectar información correspondiente a las creencias que estudiantes tienen acerca de la enseñanza y aprendizaje del inglés en Colombia.

Area general que pretende medir el test: Creencias, que hacen parte de factores afectivos, también vistas en lingüística aplicada como representaciones, opiniones, percepciones y concepciones (Pajares, 1992).

Aplicación: Individual o colectiva

Tiempo: Duración entre 20 y 25 minutos aproximadamente

Edad: Adolescentes y adultos

Ámbitos: Educación – investigación

Procedencia de los reactivos: Los reactivos que conforman el inventario provienen de una recopilación de creencias que estudiantes universitarios expresaron en una encuesta realizada por el investigador de este proyecto.

ANEXO 2

INSTRUCCIONES

Señor(a) Validador (a)

Su ejercicio como evaluador(a) consiste en clasificar cada ítem en uno de los seis dominios/dimensiones que aparecen en la parte superior derecha de los ítems. Estos dominios son: *Enfoque/Método de enseñanza, Aptitud y Dificultad para el Aprendizaje, Estrategias y Actividades de Aprendizaje, Contexto de aprendizaje, Rol/Perfil de Docentes y Estudiantes y Motivación y Expectativas*

Para clasificar cada ítem, en la Planilla de Juicio de Expertos, simplemente marque una **X** en la casilla donde considere que el ítem mejor queda clasificado en ese dominio. Un ítem puede estar clasificado en más de un dominio. Si considera que el ítem no corresponde a ninguno de los dominios expuestos, favor sugerir un nuevo dominio en la casilla "Otro". Si considera que el ítem corresponde a más de un dominio favor marcar una **X** en cada casilla donde el ítem puede corresponder (es decir, puede marcar una **X** en más de una casilla, si es necesario)

ANEXO 3

DESCRIPCIÓN DE LOS DOMINIOS

1. **Contexto de aprendizaje**

   El Centro Virtual Cervantes[1] afirma que el contexto de aprendizaje está enmarcado por factores ambientales o sociales y que éste "incluye tanto el contexto inmediato del aula como el contexto institucional en el que se inscribe un curso, así como también el contexto sociohistórico en que tiene lugar el aprendizaje".

2. **Estrategias y actividades de aprendizaje**

   Según Rebecca Oxford (1990) las estrategias de aprendizaje de una lengua son "acciones específicas, comportamientos, pasos o técnicas que los estudiantes (con frecuencia de manera intencional) utilizan para mejorar su progreso en el desarrollo de sus habilidades en la lengua extranjera." Ella también asevera que: "Estas estrategias pueden facilitar la internalización, el almacenamiento, la recuperación o el uso de la nueva lengua." (Oxford, 1990, p.18). Según el Centro Virtual Cervantes las actividades de aprendizaje son "todas aquellas acciones que realiza el alumno como parte del proceso instructivo que sigue, ya sea en el aula de la lengua meta o en cualquier otro lugar (en casa, en un centro de autoaprendizaje, en un laboratorio de idiomas, etc.).

3. **Enfoque/método de enseñanza**

   En términos generales, un enfoque o método se refiere a un conjunto teóricamente consistente de procedimientos de enseñanza que definen la práctica en la enseñanza del lenguaje. Edward Anthony[2] (1963) define enfoque como "un conjunto de supuestos correlativos que se ocupan de la naturaleza de la enseñanza y aprendizaje de idiomas... Un enfoque es axiomático... dentro de un enfoque puede haber muchos métodos." Mientras que para él el método "es un plan de eficacia general para la presentación ordenada del material del idioma... el método es procedimental." (Anthony, 1963, p. 63-67).

4. **Aptitud y dificultad para el aprendizaje**

   Clara Cecilia Uribe Hernández[3] (2011) resume la aptitud para una lengua extranjera como una capacidad cognitiva estable, ubicada, situacional, componencial, para el aprendizaje de una lengua extranjera. En cuanto a concepto de dificultad de aprendizaje, el Diccionario de la Real Academia Española (DRAE), define dificultad como embarazo, inconveniente, oposición o contrariedad que impide conseguir, ejecutar o entender bien algo y pronto. En general se podría ver la dificultad de aprendizaje como aquello que impide el aprendizaje

5. **Rol de docentes y estudiantes**

   En términos generales se considera el rol del docente (profesor) como los tipos de funciones que se espera que cumpla el profesor en su práctica docente. El rol del estudiante como los tipos de funciones que se espera que cumpla el aprendiz en su calidad de estudiante.

6. **Motivación y expectativas**

   Motivación es, en síntesis lo que hace que un individuo actúe y se comporte de una determinada manera. También es concebido como "el proceso de estimular a un individuo para que realice una acción que satisfaga alguna de sus necesidades y alcance alguna meta deseada para el motivador." (Sexton, 1977:162). Por otro lado, el DRAE define expectativa como la "esperanza de realizar o conseguir algo" y como "la posibilidad razonable de que algo suceda".

PLANILLA A JUICIO DE EXPERTOS		
Nombre del Juez:	Profesión: _____	Fecha:

Clasificación de los ítems en dominios

INSTRUCCIONES: clasifique cada ítem en uno de los dominios o dimensiones que aparecen en la parte superior derecha de los ítems. Para clasificarlos simplemente marque una x en la casilla donde considere que el ítem mejor queda clasificado en ese dominio. Si considera que el ítem no corresponde a ninguno de los dominios expuestos, favor sugerir un nuevo dominio en la columna "OTRO". Si considera que el ítem corresponde a más de un dominio favor marcar una x en cada casilla donde el ítem puede corresponder (es decir, puede marcar una **X** en más de una casilla, si es necesario).

ITEMS	DOMINIOS						
	CONTEXTO DE APRENDIZAJE	ROL/PERFIL DE DOCENTE Y ESTUDIANTE	MOTIVACION Y EXPECTATIVAS	ESTRATEGIAS Y ACTIVIDADES DE APRENDIZAJE	ENFOQUE /METODO DE ENSEÑANZA	APTITUD Y DIFICULTAD PARA EL APRENDIZAJE	OTRO
Para aprender inglés es necesario hacerlo en un país de habla inglesa							
Escuchar música en inglés favorece el aprendizaje de la lengua inglésa							
En clase de inglés se debe enfatizar en el aprendizaje de vocabulario							
Las actividades audiovisuales son importantes para el aprendizaje del inglés							
La enseñanza del inglés debe ser didáctica							

Clasificación de los ítems en dominios

INSTRUCCIONES: clasifique cada ítem en una de los dominios o dimensiones que aparecen en la parte superior derecha de los ítems. Para clasificarlos simplemente marque una x en la casilla donde considere que el ítem mejor queda clasificado en ese dominio. Si considera que el ítem no corresponde a ninguno de los dominios expuestos, favor sugerir un nuevo dominio en la columna "OTRO".

ITEMS	DOMINIOS						
	CONTEXTO DE APRENDIZAJE	ROL/PERFIL DE DOCENTE Y ESTUDIANTE	MOTIVACION Y EXPECTATIVAS	ESTRATEGIAS Y ACTIVIDADES DE APRENDIZAJE	ENFOQUE /METODO DE ENSEÑANZA	APTITUD Y DIFICULTAD PARA EL APRENDIZAJE	OTRO
Para el aprendizaje del inglés es importante la enseñanza explícita de la gramática							
Para aprender inglés se necesita de interés/actitud para lograrlo							
Aprender inglés es más fácil si se hace desde niño							
Para aprender inglés es necesario dedicarle tiempo todos, o casi todos, los días							
Para aprender inglés es necesario practicar la habilidad de escucha							
Las clases de inglés deben basarse en interacciones habladas o diálogos							
En clase de inglés se debe hablar un 100% en inglés							

.

Clasificación de los ítems en dominios

INSTRUCCIONES: clasifique cada ítem en una de los dominios o dimensiones que aparecen en la parte superior derecha de los ítems. Para clasificarlos simplemente marque una **x** en la casilla donde considere que el ítem mejor queda clasificado en ese dominio. Si considera que el ítem no corresponde a ninguno de los dominios expuestos, favor sugerir un nuevo dominio en la columna "OTRO".

ITEMS	DOMINIOS						
	CONTEXTO DE APRENDIZAJE	ROL/PERFIL DE DOCENTE Y ESTUDIANTE	MOTIVACION Y EXPECTATIVAS	ESTRATEGIAS Y ACTIVIDADES DE APRENDIZAJE	ENFOQUE /METODO DE ENSEÑANZA	APTITUD Y DIFICULTAD PARA EL APRENDIZAJE	OTRO
En clase de inglés se puede recurrir al español							
El profesor de inglés debe enfatizar mucho en la pronunciación							
Para aprender inglés es necesario contar con diversos recursos o materiales de clase (libros, Cds, ayudas audiovisuales, etc.)							
Es importante aprender inglés							
La enseñanza del inglés debe ser lúdica							
Para aprender inglés es importante hacer ejercicios de lecturas en inglés							
Para aprender inglés es necesario saber acerca de los paises de habla inglesa							

Clasificación de los ítems en dominios

INSTRUCCIONES: clasifique cada ítem en una de los dominios o dimensiones que aparecen en la parte superior derecha de los ítems. Para clasificarlos simplemente marque una **x** en la casilla donde considere que el ítem mejor queda clasificado en ese dominio. Si considera que el ítem no corresponde a ninguno de los dominios expuestos, favor sugerir un nuevo dominio en la columna "OTRO".

ITEMS	DOMINIOS						
	CONTEXTO DE APRENDIZAJE	ROL/PERFIL DE DOCENTE Y ESTUDIANTE	MOTIVACION Y EXPECTATIVAS	ESTRATEGIAS Y ACTIVIDADES DE APRENDIZAJE	ENFOQUE /METODO DE ENSEÑANZA	APTITUD Y DIFICULTAD PARA EL APRENDIZAJE	OTRO
Para aprender inglés es necesario interactuar con personas cuya lengua nativa es el inglés							
Los profesores de inglés deben ser de un pais de habla inglesa							
Cuanto más personalizada sea la clase de inglés, más se aprende							
La enseñanza del inglés deberia estar centrada en situaciones cotidianas							
Para aprender inglés es importante realizar trabajos extra clase							
Es mejor el inglés británico que el americano							

Clasificación de los ítems en dominios

INSTRUCCIONES: clasifique cada ítem en una de los dominios o dimensiones que aparecen en la parte superior derecha de los ítems. Para clasificarlos simplemente marque una x en la casilla donde considere que el ítem mejor queda clasificado en ese dominio. Si considera que el ítem no corresponde a ninguno de los dominios expuestos, favor sugerir un nuevo dominio en la columna "OTRO".

ITEMS	DOMINIOS						
	CONTEXTO DE APRENDIZAJE	ROL/PERFIL DE DOCENTE Y ESTUDIANTE	MOTIVACION Y EXPECTATIVAS	ESTRATEGIAS Y ACTIVIDADES DE APRENDIZAJE	ENFOQUE /METODO DE ENSEÑANZA	APTITUD Y DIFICULTAD PARA EL APRENDIZAJE	OTRO
Es más importante la pronunciación que el acento							
Realizar ejercicios de traducción favorece el aprendizaje del inglés							
En clase de inglés es importante realizar ejercicios de escritura							
Se debe enseñar tanto inglés americano como británico							
En clase se debería enfatizar más en el desarrollo de la habilidad de habla y escucha							
Es muy difícil aprender inglés en un país de habla hispana							
El inglés es un idioma difícil de aprender							

Clasificación de los ítems en dominios

INSTRUCCIONES: clasifique cada ítem en una de los dominios o dimensiones que aparecen en la parte superior derecha de los ítems. Para clasificarlos simplemente marque una x en la casilla donde considere que el ítem mejor queda clasificado en ese dominio. Si considera que el ítem no corresponde a ninguno de los dominios expuestos, favor sugerir un nuevo dominio en la columna "OTRO".

ITEMS	DOMINIOS						
	CONTEXTO DE APRENDIZAJE	ROL/PERFIL DE DOCENTE Y ESTUDIANTE	MOTIVACION Y EXPECTATIVAS	ESTRATEGIAS Y ACTIVIDADES DE APRENDIZAJE	ENFOQUE /METODO DE ENSEÑANZA	APTITUD Y DIFICULTAD PARA EL APRENDIZAJE	OTRO
Para aprender inglés es importante una buena interrelación estudiante – docente							
Para aprender inglés es necesario pensar en inglés							
Es importante que el docente de inglés haya estado en un país de habla inglesa							
La enseñanza del inglés se debería integrar en la enseñanza de otras asignaturas							
Los cursos de inglés por Internet son recursos valiosos para apoyar el aprendizaje del inglés							
El profesor de inglés debe motivar a sus estudiantes a aprender ese idioma							

Clasificación de los ítems en dominios

INSTRUCCIONES: clasifique cada ítem en una de los dominios o dimensiones que aparecen en la parte superior derecha de los ítems. Para clasificarlos simplemente marque una x en la casilla donde considere que el ítem mejor queda clasificado en ese dominio. Si considera que el ítem no corresponde a ninguno de los dominios expuestos, favor sugerir un nuevo dominio en la columna "OTRO".

ITEMS	DOMINIOS						
	CONTEXTO DE APRENDIZAJE	ROL/PERFIL DE DOCENTE Y ESTUDIANTE	MOTIVACION Y EXPECTATIVAS	ESTRATEGIAS Y ACTIVIDADES DE APRENDIZAJE	ENFOQUE /METODO DE ENSEÑANZA	APTITUD Y DIFICULTAD PARA EL APRENDIZAJE	OTRO
La enseñanza del inglés debe ser más práctica que teórica							
Se debería procurar en que el alumno desarrolle fluidez en el idioma inglés							
Se deben innovar las metodologías para la enseñanza del inglés							
Para aprender inglés se necesita de un tutor o profesor							
Las personas mayores de edad presentan mayor dificultad para aprender inglés							
Si no se practica el inglés se olvida							
La pronunciación del inglés es difícil de aprender							

Clasificación de los ítems en dominios

INSTRUCCIONES: clasifique cada ítem en una de los dominios o dimensiones que aparecen en la parte superior derecha de los ítems. Para clasificarlos simplemente marque una x en la casilla donde considere que el ítem mejor queda clasificado en ese dominio. Si considera que el ítem no corresponde a ninguno de los dominios expuestos, favor sugerir un nuevo dominio en la columna "OTRO".

ITEMS	DOMINIOS						
	CONTEXTO DE APRENDIZAJE	ROL/PERFIL DE DOCENTE Y ESTUDIANTE	MOTIVACION Y EXPECTATIVAS	ESTRATEGIAS Y ACTIVIDADES DE APRENDIZAJE	ENFOQUE /METODO DE ENSEÑANZA	APTITUD Y DIFICULTAD PARA EL APRENDIZAJE	OTRO
Para aprender inglés es necesario estudiarlo de manera presencial							
En clase de inglés se debería hacer más énfasis en la habilidad de habla							
En clase de inglés las actividades orales en grupo facilitan el aprendizaje							
La exigencia por parte del docente al estudiante es importante para el aprendizaje del inglés							
Las actividades competitivas en clase estimulan el interés del estudiante por el aprendizaje del inglés							
Ejercicios de repetición favorecen el aprendizaje del inglés							

Clasificación de los ítems en dominios

INSTRUCCIONES: clasifique cada ítem en una de los dominios o dimensiones que aparecen en la parte superior derecha de los ítems. Para clasificarlos simplemente marque una x en la casilla donde considere que el ítem mejor queda clasificado en ese dominio. Si considera que el ítem no corresponde a ninguno de los dominios expuestos, favor sugerir un nuevo dominio en la columna "OTRO".

ITEMS	DOMINIOS						
	CONTEXTO DE APRENDIZAJE	ROL/PERFIL DE DOCENTE Y ESTUDIANTE	MOTIVACION Y EXPECTATIVAS	ESTRATEGIAS Y ACTIVIDADES DE APRENDIZAJE	ENFOQUE /METODO DE ENSEÑANZA	APTITUD Y DIFICULTAD PARA EL APRENDIZAJE	OTRO
Cuando se quiere aprender inglés se puede							
El aprendizaje del inglés se le facilita más a unas personas que a otras							
Un profesor de inglés debe corregir al estudiante en el momento que sea necesario							
En clase de inglés es más importante hacer énfasis en la habilidad de habla que en la gramática							
Cantar en inglés favorece el aprendizaje del inglés							
Es importante que el docente enseñe al estudiante cómo aprender							

APPENDIX E

Transcription of the data to generate the items for the COBALTALI

Since the tabulation of the 2556 reported belief-statements comprises 47 pages, in this part of the dissertation it is presented a sample of such transcription. The whole transcription is presented in a document and a CD attached to this Thesis document.

-

BELIEF-STATEMENTS REPORTED BY 249 PARTICIPANTS TO GENERATE THE ITEMS FOR THE COBALTALI	
1.	Para aprender Inglés es necesario tener interés en hacerlo
2.	para aprender Inglés es necesario una instrucción clara e intensiva
3.	Para aprender Inglés el sujeto debe practicar diariamente el vocabulario
4.	Para aprender Inglés se necesita de retos necesarios que ayuden a desenvolver al sujeto frente a situaciones tanto cotidianas como especiales
5.	Para aprender Inglés se debe comenzar a elaborar talleres donde el sujeto vea necesario y vital aprender
6.	Para aprender no se debe obligar al sujeto, éste no querrá aprender algo que se le impone a menos que le interese o crea que fue su idea
7.	Para aprender Inglés in profesor debe ser capaz de lograr que el sujeto busque por iniciativa propia definiciones nuevas, por ejemplo, motivandolo con gustos propios del sujeto
8.	El Inglés británico es más necesario de aprender que el Inglés americano
9.	las personas no aprender a hablar Inglés sin práctica autoaplicada
10.	Los recursos de los que depende un profesor para su enseñanza son limitados con cada sujeto
11.	Mucho vocabulario no aplica a saber expresarlo fluidamente
12.	La fluidez al hablar depende estrictamente de la voluntad del sujeto por aprender
13.	La retroalimentación y competitividad entre grupos enteros puede ayudar a generar interés entre los sujetos
14.	Para aprender Inglés es necesario conocer todos los tiempos
15.	Para aprender Inglés es necesario aprender la mayor parte de vocabulario
16.	Para aprender Inglés es necesario la actitud adecuada para lograrlo
17.	Para aprender Inglés es necesario practicarlo con las demás personas constantemente
18.	Es necesario ir a países para practicar
19.	Es necesario que el profesor tenga excelentes conocimientos
20.	Es necesario hacer actividades lúdicas para mejorar
21.	Que las clases no sean tanto en español
22.	Hacer más concursos
23.	Hacer énfasis en la pronunciación
24.	PROFESOR
25.	Debe tener buena pronunciación
26.	Tener carisma para enseñar
27.	Que debe hacer clases lúdicas
28.	Debe conocer acerca de diversos temas
29.	Debería hacer talleres para verificar el nivel
30.	Deberían hacer trabajos de listening para mejorar el escucha
31.	Hacer trabajos escritos para mejorar la redacción
32.	Si debemos reconocer de donde proviene el Inglés porque siempre habrá alguna diferencia y diferentes creencias
33.	Debemos de tener más clases en la semana para poder progresar y practicar mucho más
34.	Tener más horas para que el progreso sea eminente
35.	Realizar investigaciones o exposiciones para desarrollar el oído y el habla
36.	Tácticas para el oído y habla
37.	Yo creo que si es necesario ya que por mi parte quisiera viajar a uno de estos países para conocer un poco más su forma de hablar y expresarse, porque tengo entendido que el Inglés no es sólo vocabulario, también es pronunciación y acento, y esto es lo que me gustaría experimentar en alguno de los países de habla Inglesa.
38.	Pienso que sería más fácil aprender Inglés conociendo alguna persona que sea de uno de estos países
39.	Pienso que es más importante la pronunciación que el acento
40.	El acento lo podemos aprender mediante canciones o cosas así. Ese es mi caso pues por medio de éstas también aprendo vocabulario y de igual manera pronunciación
41.	Creo que para iniciar deberíamos profundizar en la pronunciación y más adelante con el acento
42.	Fluidez por medio de canciones
43.	Pronunciación con la lengua afuera
44.	Actividades en clase y casa
45.	mejor Inglés Británico
46.	El escuchar y el hablar ambas son difíciles
47.	Vivir en una parte donde solo se hable Inglés
48.	Escuchando canciones en Inglés
49.	Hablando Inglés con otra persona
50.	Las mujeres tienen más capacidad de aprender Inglés que los hombres
51.	Manejar 60% Inglés y 40% español
52.	Para mí no necesariamente hay que saber todo de los países de habla Inglesa lo único importante sería como el acento y la pronunciación y pues si me parece una buena idea para aprender mejor y ser más capacitado

53.	Una podría ser que en el colegio no enseñan muy bien inglés en cambio en la universidad se aprende más en un nivel más alto
54.	Es mejor escribir inglés que francés
55.	Con ayuda de canciones y de juegos didácticos es más fácil hablar y escribir el inglés
56.	Es mejor que lo enseñe una persona que ha viajado a países donde se habla inglés que un profesor que solo está en Colombia
57.	Para aprender más fácil y de modo que no se le olvide a uno es mejor empezar por la escucha, luego la pronunciación y luego la escritura
58.	Sería mejor que le docente y el alumno tuvieran más confianza para aprender más y desenvolverse sin pena frente a nadie
59.	Un profesor debería ser más eficaz de enseñar y de una metodología más fácil sin enredos
60.	Yo pienso que debería enfatizar más en la pronunciación que en el acento porque el acento va más como con la forma y ubicación del país
61.	El acento va en cada persona y es menos importante por si se desenvuelve con una buena pronunciación podrá entablar una buena conversación.
62.	Es básico saber de donde proviene o se habla el inglés
63.	Se debe tener un amplio conocimiento del habla
64.	debe tener la mente concentrada en la materia para poder expresar o hablar bien el idioma inglés
65.	Una creencia básica de lo que se debe o no saber en el área
66.	Es necesario aprender el habla inglés escuchándola
67.	hablar el idioma es importante para poder desarrollar la motricidad de la boca
68.	Creer que si se puede interpretar el habla
69.	meterse en el acento o el tema que se ve haciéndolo real para obtener más fluidez
70.	Mantener márgenes de distribución del habla español e inglés.
71.	En un nivel tan un poco bajo no creería yo que lo primordial sería si tiene algo de bases pulirlas hasta obtener un poco más de ella
72.	Con la adquisición de ir avanzando en cuanto a los niveles de inglés si sería bueno aprender y conocer un poco de allá y otro poco de acá ayuda a ir mejorando y perfeccionándola cada día
73.	Nunca es tarde para aprender inglés
74.	Si con lo que hizo en la primaria en cuanto a su manejo, disposición de aprendizaje en el inglés desde luego que traerá muy buena bases que posible se le hallan olvidado con un simple recórderis bastará para volver a acoplarse
75.	Es un poco más difícil escuchar lo que te quieren decir y un poco más tratar de que se pueda responder a la misma altura y disposición.
76.	Las bases o inicios del inglés sin dudad se ven reflejados dependiendo si a un más no se ve el acoplamiento o adaptación a un grupo cuando este por el contrario tra buenas bases
77.	En muchas veces tal vez la falta de llenar ese vacío de no estar a la altura adecuada al programa de inglés lleva a la decepción, desmotivación y sobre todo ganas de hacer las cosas por si mismo.
78.	La diversidad de metodologías utilizadas o empleadas para ayudar a la optimización del inglés son bastante buenas ya que facilitan a las mayorías de personas y además si no es posible aprender por una se podrá aprender por otra
79.	El inglés se facilita para muchas personas como para otras no por eso yo diría que es preciso para aquellas que no lo es así realizar cursos de este para la adquisición y buen manejo del inglés y sobre todo antes de entrar a la educación superior
80.	La falta de actitud es primordial en el proceso de aprendizaje con ello se puede hechar a perder muchas cosas que con anhelo se ha conseguido o tal vez se conseguirá
81.	Creencia que no es necesario pero a la vez si porque no esta sujeto que yo coloque atención a un maestro a saber de el país como tal del idioma que estoy aprendiendo, pero lo que culturiza a un país es su lengua natal
82.	Creo que es más fácil que escuchar, escribir
83.	Creo que es mejor el inglés americano que el británico
84.	Creo que es más fácil aprender con un profesor que tenga buen manejo de las dos lenguas
85.	Creo que ayuda al conocimiento actividades por competencias o demás
86.	Creo que el estudiante debe estar en buenas condiciones para aprender
87.	El profesor debe tener la atención de los estudiantes
88.	El profesor debe hacer su clase más dinámica pero sin dejar atrás la teoría necesaria
89.	Creencia que el profesor debe hacer uso de herramientas (grabadoras, videos, etc).
90.	El profesor debería entender y escuchar a sus estudiantes
91.	En otros países tenemos más posibilidades de aprender inglés ya que con un lenguaje que mantengamos permanentemente éste se nos va quedando y lo vamos asimilando más rápido y mucho mejor
92.	Para aprender inglés lo fundamental es tener interés
93.	En Colombia el nivel de aprendizaje no se enseña con suficientes bases
94.	Es más fácil el inglés americano que el británico
95.	Nadie aprende exactamente a hablar inglés
96.	Es más fácil aprender a pronunciar que a escribir inglés
97.	Una buena manera de adquirir lenguaje es por medio de el oído escuchando a nuestros artistas favoritos adquirimos buen vocabulario
98.	El que no tiene interés por el inglés nunca logrará aprenderlo

APPENDIX F

Survey for the item assessment stage

(Date)

(Recepient)

Mi nombre es José Marín, estudiante del Doctorado en Lingüística Aplicada en la Universidad Autónoma de Madrid en España. Actualmente estoy realizando mi tesis doctoral denominada *Colombian Students' Beliefs about Language Teaching and Learning Inventory (COBALTALI): Development, Validation and Results*. Cordialmente me dirijo a Usted con el fin de solicitar su inapreciable colaboración como experto para validar el contenido del cuestionario COBALTALI, anexo 4, el cual será aplicado a estudiantes de inglés. Esta actividad tomará aproximadamente 20 minutos. Acudo a usted porque considero que sus observaciones y posibles sugerencias serán un aporte de gran utilidad para los objetivos de este proyecto. Su aporte como validador se manejará de forma confidencial y anónima, si así lo prefiere.

Antes de empezar el proceso de validación de contenido, es importante leer cuidadosamente el Anexo 1: **"Características del instrumento"**.Agradezco cualquier sugerencia que considere relevante para el mejoramiento de este instrumento.

Gracias de antemano por aportar a este proyecto.

José Marín Juanías

Doctor en Lingüística Aplicada (c)

ANEXO 1

CARACTERÌSTICAS DEL INSTRUMENTO

Nombre del instrumento: Colombian Beliefs about Language Teaching and Learning Inventory - COBALTALI-

Categoría: Inventario conformado por enunciados-items o reactivos de actitud

Objetivo: recolectar información correspondiente a las creencias que estudiantes tienen acerca de la enseñanza y aprendizaje del inglés en Colombia.

Area general que pretende medir el test: Creencias, que hacen parte de factores afectivos, también vistas en lingüística aplicada como representaciones, opiniones, percepciones y concepciones (Pajares, 1992).

Aplicación: Individual o colectiva

Tiempo: Duración entre 20 y 25 minutos aproximadamente

Edad: Adolescentes y adultos

Ámbitos: Educación – investigación

Procedencia de los reactivos: Los reactivos que conforman el inventario provienen de una recopilación de creencias que estudiantes universitarios expresaron en una encuesta realizada por el investigador de este proyecto.

PLANILLA DATOS DEL EVALUADOR	
Nombre del Juez: _____	Formación Académica: _____
Profesión: _____	Fecha: _____

INSTRUCCIONES

Señor(a) Evaluador (a)

Su ejercicio como evaluador consiste en valorar los ítems o reactivos del inventario mediante los criterios de Claridad en la redacción, Adecuación en las opciones de respuesta, Adecuación a los destinatarios, y Longitud de los Items. Esta evaluación se debe emitir mediante los siguientes cuatro aspectos cualitativos de respuesta: "Deficiente", Aceptable", "Buena" y "Excelente". Para emitir su juicio simplemente marque una **x** en la casilla donde aparece el aspecto cualitativo que usted considere que se cumple en cada criterio. Si tiene una sugerencia u observación favor expresarla en la casilla "Observación general".

Valoración de los items del inventario

INSTRUCCIONES: Simplemente marque una **x** en la casilla donde aparece el aspecto cualitativo que usted considere que se cumple. Si tiene una sugerencia u observación favor expresarla en la casilla "Observaciones".

ITEMS	Claridad en su redacción				Adecuación en sus opciones de respuestas				Adecuación a los destinatarios				Longitud del ítem				OBSERVACIONES
#	DEFICIENTE	ACEPTABLE	BUENA	EXCELENTE	DEFICIENTE	ACEPTABLE	BUENO	EXCELENTE	DEFICIENTE	ACEPTABLE	BUENO	EXCELENTE	DEFICIENTE	ACEPTABLE	BUENO	EXCELENTE	
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APPENDIX G

Final COBALTALI format

ENCUESTA

INVENTARIO DE CREENCIAS SOBRE LA ENSEÑANZA Y APRENDIZAJE DEL INGLÉS -COBALTALI-

Favor diligenciar esta encuesta que consta de dos partes: Información personal y Creencias acerca de la enseñanza y aprendizaje del inglés. Esta información será tratada de manera confidencial y utilizada únicamente para fines académicos. Favor responder con la mayor sinceridad. No hay respuestas correctas o incorrectas. Gracias por su colaboración.

I. Información personal:

Es usted: Hombre ☐ Mujer ☐ Edad: _____

Estrato: _____ Semestre: _____

Nivel de Inglés: A1o Principiante ☐ A2 o Elemental ☐ B1 o Intermedio ☐ B2 o Intermedio alto ☐ C1 o Avanzado ☐

II. Información acerca de sus creencias sobre la enseñanza y aprendizaje del inglés

A continuación encontrará una lista de creencias, opiniones o representaciones acerca de la enseñanza y aprendizaje del inglés. Lea cada una de las afirmaciones y marque con una X si está:

(a) Plenamente de acuerdo

(b) De acuerdo

(c) Ni de acuerdo ni en desacuerdo

(c) En desacuerdo

(d) Totalmente en desacuerdo

INVENTARIO DE CREENCIAS SOBRE LA ENSEÑANZA Y APRENDIZAJE DEL INGLÉS -COBALTALI-

		Plenamente de acuerdo	De acuerdo	Ni de acuerdo ni en desacuerdo	En desacuerdo	Totalmente en desacuerdo
1	Para aprender inglés es necesario hacerlo en un país de habla inglesa					
2	Escuchar música en inglés favorece el aprendizaje de la lengua inglesa					
3	En clase de inglés se debe enfatizar en el aprendizaje de vocabulario					
4	Las actividades audiovisuales son importantes para el aprendizaje del inglés					
5	La enseñanza del inglés debe ser didáctica					
6	Para el aprendizaje del inglés es importante la enseñanza explícita de la gramática					
7	Para aprender inglés se necesita de interés/actitud para lograrlo					
8	Aprender inglés es más fácil si se hace desde niño					
9	Para aprender inglés es necesario dedicarle tiempo todos, o casi todos, los días					
10	Para aprender inglés es necesario practicar la habilidad de escucha					
11	Las clases de inglés deben basarse en interacciones habladas o diálogos					
12	En clase de inglés se debe hablar un 100% en inglés					
13	En clase de inglés se puede recurrir al español					
14	El profesor de inglés debe enfatizar mucho en la pronunciación					
15	Para aprender inglés es necesario contar con diversos recursos o materiales de clase (libros, Cds, ayudas audiovisuales, ayudas tecnológicas, etc.)					
16	Es importante aprender ingles					
17	La enseñanza del inglés debe ser lúdica					
18	Para aprender inglés es importante hacer ejercicios de lecturas en inglés					
19	Para aprender inglés es necesario saber acerca de los países de habla inglesa					
20	Para aprender inglés es necesario interactuar con personas cuya lengua nativa es el inglés					

INVENTARIO DE CREENCIAS SOBRE LA ENSEÑANZA Y APRENDIZAJE DEL INGLÉS -COBALTALI-

		Plenamente de acuerdo	De acuerdo	Ni de acuerdo ni en desacuerdo	En desacuerdo	Totalmente en desacuerdo
21	Los profesores de inglés deben ser de un país de habla inglesa					
22	Cuanto más personalizada sea la clase de inglés, más se aprende					
23	La enseñanza del inglés debería estar centrada en situaciones cotidianas					
24	Para aprender inglés es importante realizar trabajos extra clase					
25	Es mejor el inglés británico que el americano					
26	Es más importante la pronunciación que el acento					
27	Realizar ejercicios de traducción favorece el aprendizaje del inglés					
28	En clase de inglés es importante realizar ejercicios de escritura					
29	Se debe enseñar tanto inglés americano como británico					
30	En clase se debería enfatizar más en el desarrollo de la habilidad de habla y escucha					
31	Es muy difícil aprender inglés en un país de habla hispana					
32	El inglés es un idioma difícil de aprender					
33	Para aprender inglés es importante una buena interrelación estudiante – docente					
34	Para aprender inglés es necesario pensar en inglés					
35	Es importante que el docente de inglés haya estado en un país de habla inglesa					
36	La enseñanza del inglés se debería integrar en la enseñanza de otras asignaturas					
37	Los cursos de inglés por Internet son recursos valiosos para apoyar el aprendizaje del inglés					
38	El profesor de inglés debe motivar a sus estudiantes a aprender ese idioma					
39	La enseñanza del inglés debe ser más práctica que teórica					

40	Se debería procurar en que el alumno desarrolle fluidez en el idioma inglés					
41	Se deben innovar las metodologías para la enseñanza del inglés					
42	Para aprender inglés se necesita de un tutor o profesor					

INVENTARIO DE CREENCIAS SOBRE LA ENSEÑANZA Y APRENDIZAJE DEL INGLÉS -COBALTALI-

		Plenamente de acuerdo	De acuerdo	Ni de acuerdo ni en desacuerdo	En desacuerdo	Totalmente en desacuerdo
43	Las personas mayores de edad presentan mayor dificultad para aprender inglés					
44	Si no se practica el inglés se olvida					
45	La pronunciación del inglés es difícil de aprender					
46	Para aprender inglés es necesario estudiarlo de manera presencial					
47	En clase de inglés se debería hacer más énfasis en la habilidad de hábla					
48	En clase de inglés las actividades orales en grupo facilitan el aprendizaje					
49	La exigencia por parte del docente al estudiante es importante para el aprendizaje del inglés					
50	Las actividades competitivas en clase estimulan el interés del estudiante por el aprendizaje del inglés					
51	Los ejercicios de repetición favorecen el aprendizaje del inglés					
52	Cuando se quiere aprender inglés se puede					
53	El aprendizaje del inglés se le facilita más a unas personas que a otras					
54	Un profesor de inglés debe corregir al estudiante en el momento que sea necesario					
55	En clase de inglés es más importante hacer énfasis en la habilidad de hábla que en la gramática					
56	Cantar en inglés favorece el aprendizaje del inglés					
57	Es importante que el docente enseñe al estudiante cómo aprender					

APPENDIX H

Survey to assess the final COBALTALI format

(Date)

(Recepient)

Mi nombre es José Marín, estudiante del Doctorado en Lingüística Aplicada en la Universidad Autónoma de Madrid en España. Actualmente estoy realizando mi tesis doctoral denominada *Colombian Students' Beliefs about Language Teaching and Learning Inventory (COBALTALI): Development, Validation and Results*. Cordialmente me dirijo a Usted con el fin de solicitar su inapreciable colaboración como experto para validar el contenido del cuestionario COBALTALI, anexo 4, el cual será aplicado a estudiantes de inglés. Esta actividad tomará aproximadamente 20 minutos. Acudo a usted porque considero que sus observaciones y posibles sugerencias serán un aporte de gran utilidad para los objetivos de este proyecto. Su aporte como validador se manejará de forma confidencial y anónima, si así lo prefiere.

Antes de empezar el proceso de validación de contenido, es importante leer cuidadosamente el Anexo 1: **"Características del instrumento"**.Agradezco cualquier sugerencia que considere relevante para el mejoramiento de este instrumento.

Gracias de antemano por aportar a este proyecto.

José Marín Juanías

Doctor en Lingüística Aplicada (c)

ANEXO 1

CARACTERÍSTICAS DEL INSTRUMENTO

Nombre del instrumento: Colombian Beliefs about Language Teaching and Learning Inventory - COBALTALI-

Categoría: Inventario conformado por enunciados-ítems o reactivos de actitud

Objetivo: recolectar información correspondiente a las creencias que estudiantes tienen acerca de la enseñanza y aprendizaje del inglés en Colombia.

Area general que pretende medir el test: Creencias, que hacen parte de factores afectivos, también vistas en lingüística aplicada como representaciones, opiniones, percepciones y concepciones (Pajares, 1992).

Aplicación: Individual o colectiva

Tiempo: Duración entre 20 y 25 minutos aproximadamente

Edad: Adolescentes y adultos

Ámbitos: Educación – investigación

Procedencia de los reactivos: Los reactivos que conforman el inventario provienen de una recopilación de creencias que estudiantes universitarios expresaron en una encuesta realizada por el investigador de este proyecto.

PLANILLA DATOS DEL EVALUADOR	
Nombre del Juez: _____	Formación Académica: _____
Profesión: _____	Fecha: _____

VALORACIÒN DE LA *PRESENTACIÒN DE LA ENCUESTA*
sección "Párrafo de presentación"

INSTRUCCIONES: Simplemente marque una x en la casilla donde aparece el aspecto cualitativo que usted considere que se cumple. Si tiene una sugerencia u observación favor expresarla en la casilla "Observación general".

	Claridad			
	DEFICIENTE	ACEPTABLE	BUENA	EXCELENTE
Párrafo de presentación				
OBSERVACIÓN GENERAL				

VALORACIÒN DE LA *PRESENTACIÒN DE LA ENCUESTA*
sección "Información personal"

INSTRUCCIONES: Simplemente marque una x en la casilla donde aparece el aspecto cualitativo que usted considere que se cumple. Si tiene una sugerencia u observación favor expresarla en la casilla "Observación general".

	Claridad			
	DEFICIENTE	ACEPTABLE	BUENA	EXCELENTE
Información personal				
OBSERVACIÓN GENERAL				

VALORACIÒN DE LA *PRESENTACIÒN DE LA ENCUESTA*
sección "Instrucciones"

INSTRUCCIONES: Simplemente marque una x en la casilla donde aparece el aspecto cualitativo que usted considere que se cumple. Si tiene una sugerencia u observación favor expresarla en la casilla "Observación general".

	Claridad			
	DEFICIENTE	ACEPTABLE	BUENA	EXCELENTE
Instrucciones				
OBSERVACIÓN GENERAL				

Valoración de la encuesta
Sección "Ítems del inventario"

INSTRUCCIONES: Simplemente marque una x en la casilla donde aparece el aspecto cualitativo que usted considere que se cumple. Si tiene una sugerencia u observación favor expresarla en la casilla "Observaciones".

ITEMS	Claridad en su redacción				OBSERVACIONES
#	DEFICIENTE	ACEPTABLE	BUENA	EXCELENTE	
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APPENDIX I

Results of Factor analysis

Factor solution by the method of principal axes with PROMAX rotation (the solution converged in 7 iterations)

Ítem	Factor 1	Factor 2	Factor 3	Factor 4
it3	0,583	-0,181	0,155	-0,118
it14	0,533			
it28	0,533		-0,105	
it29	0,487	-0,193		0,207
it49	0,484	0,146		
it56	0,478			
it2	0,452	-0,102	-0,146	0,123
it30	0,448			0,141
it50	0,443			
it6	0,401	-0,118	0,121	-0,106
it47	0,398	0,122	0,135	
it48	0,370	0,196		
it15	0,354			
it38	0,349	0,256		
it40	0,339	0,223		
it4	0,327			
it18	0,294	0,214	-0,128	
it57	0,259	0,154	0,254	-0,131
it9	-0,182	0,671		
it17		0,490		
it34		0,470	-0,108	0,179
it44		0,461	0,255	-0,110
it52	0,214	0,390	-0,212	-0,244
it23		0,382		0,203
it8		0,375	0,164	
it41	0,172	0,371	0,111	
it11	0,253	0,368	-0,101	0,122
it16	0,138	0,355		
it36		0,338	-0,164	0,185
it54	0,242	0,320		-0,198
it22		0,317	0,143	0,169
it5	0,172	0,315		-0,101
it24		0,310		0,105

Ítem	Factor 1	Factor 2	Factor 3	Factor 4
it39	0,133	0,305	0,117	
it10	0,245	0,302	-0,117	
it32	-0,173		0,675	0,119
it45			0,604	
it31	-0,129	0,142	0,467	0,266
it13		-0,187	0,437	
it53		0,287	0,418	
it46	0,300		0,383	0,126
it42	0,126	0,169	0,367	
it43	-0,156	0,300	0,332	0,101
it33	0,232		0,304	
it51	0,234	0,177	0,301	-0,200
it21		-0,152		0,746
it35			0,126	0,593
it1	-0,202	0,144	0,168	0,544
it20	0,157	0,102		0,511
it19	0,247	-0,108		0,437
it12	0,293	0,353	-0,276	0,354

APPENDIX J

Translation of Table 13

Examples of transformation of the 2,556 belief statements into 72 items

Belief-statements reported	Procedure of item refinement	Belief-statements after item refinement process
• To learn to speak English it is good to go to countries where it is possible to practice a lot • To learn English it is necessary to go to English speaking countries • It is necessary to go to countries to practice • To reinforce this language it is adequate and it would be indispensable to go to an English speaking country	Semantic synthesis	To learn English it is necessary to go to an English speaking country
• Supporting material beyond books, example films from these countries • To learn English technological tools are necessary • A teacher must use technological tools • I think it is important that the teacher has had experience of taking or being in an English-speaking country to be able to teach better	Simple and natural language Aim for short and simple items	The use of technology in English teaching promotes English language learning It is important that the English teacher have been in an English speaking country
• With the help of songs and didactic games it is easier to speak **and** write in English • It is necessary to speak English all the time **and** be as concise as possible	Avoid double-barreled questions/statements	• Singing in English facilitates English language learning • In English class the use of English should be 100%
• Supporting material • Learning how to distinguish the verbs • Concentration	Discard	

APPENDIX K

Translation of Table 25

Breakdown of Students' (n: 563) response rates in percentages

#	ITEMS	RESPONSES %						
		1	2	3	4	5	Total %	n.
1	To learn English it is necessary to go to an English speaking country	12,3	23,6	30,9	22,4	10,5	99,7	563
2	Listening to music in English facilitates English learning	42,1	49,0	6,9	1,2	,4	99,6	563
3	In English class the learning of vocabulary should be emphasized	46,0	43,7	7,1	2,3	,2	99,3	563
4	Audiovisual activities are important when learning English	43,7	43,6	11,2	,8	,0	99,3	563
5	English teaching should be didactic	58,3	32,5	7,6	,4	,5	99,3	563
6	Explicit teaching of grammar is important for English learning	34,5	48,3	13,0	2,5	,7	99	563
7	To learn English it is necessary to show attitude and interest to achieve it	79,6	16,0	2,1	,2	,7	99,3	563
8	Learning English is easier if it is done since it is a child	55,1	26,1	13,9	3,0	1,2	99,3	563
9	It is necessary to devote time every day, or almost every day, to learn English	45,7	41,2	9,8	1,6	1,2	99,5	563
10	To learn English it is necessary to practice listening skills	60,6	35,3	2,7	,5	,4	99,5	563
11	English classes should be primarily conversational	40,3	42,8	14,5	,9	,5	99	563
12	In English class the use of English should be 100%	25,6	26,9	29,0	15,8	1,6	99,2	563
13	In English class you can resort to Spanish	13,3	48,7	25,8	7,6	4,3	99,7	563
14	English teachers should make much emphasis on pronunciation	55,6	38,5	4,8	,4	,2	99,5	563
15	To learn English it is necessary to have different resources or classroom materials, such as books, cds, audiovisual aids and technological aids	54,0	35,7	7,6	1,6	,5	99,4	563
16	It is important to learn English	82,6	14,4	2,1	,2	,5	99,8	563
17	English teaching should be ludic	51,9	39,1	7,1	,5	,5	99,1	563
18	It is important to do English reading exercises when learning English	46,9	42,5	8,7	,7	,5	99,3	563
19	To learn English it is necessary to know about English-speaking countries	14,0	22,6	43,2	16,3	3,7	99,8	563
20	To learn English it is necessary to interact with people whose native language is English	30,7	35,8	24,2	6,2	2,1	99	563
21	English teachers should be from an English-speaking country	8,5	9,4	37,8	31,6	12,6	99,9	563
22	The more personalized the English class is, the more you learn	40,5	38,5	16,9	2,7	1,2	99,8	563
23	English teaching should be focused on everyday situations	27,9	45,1	24,5	2,0	,4	99,9	563
24	It is important to do extra class work to learn English	23,6	44,2	24,9	5,3	,7	99,3	563
25	British English is better than American English	16,7	16,3	56,8	5,7	3,7	99,2	563
26	Pronunciation is more important than accent	22,9	36,7	31,8	7,1	1,2	99,7	563
27	Translation exercises promotes English language learning	23,8	49,0	19,0	5,9	1,6	99,3	563
28	In English class it is important to perform writing exercises	38,4	53,8	5,3	1,1	,4	99	563
29	It should be taught both American and British English	37,7	33,4	24,0	3,7	,9	99,7	563
30	In English class it should be emphasized more on the development of speaking and listening skills	45,5	41,7	9,9	1,6	,5	99,2	563
31	It is very difficult to learn English in a Spanish-speaking country	14,2	23,6	33,6	21,7	6,6	99,7	563
32	English is a difficult language to learn	10,8	23,6	27,5	24,2	13,3	99,4	563
33	To learn English it is important to establish a good student-teacher interrelationship	39,1	44,2	12,6	2,8	,4	99,1	563
34	To learn English you need to think in English	41,2	34,8	17,6	3,7	1,8	99,1	563
35	It is important that the English teacher have been in an English speaking country	17,6	22,0	38,4	16,9	4,8	99,7	563
36	English teaching should be integrated into the teaching of other subjects	38,7	38,7	16,3	4,3	1,4	99,4	563
37	English courses online are valuable resources to support learning	33,7	44,4	16,7	2,7	2,0	99,5	563

	English							
38	An English teacher must motivate their students to learn the language	54,4	37,8	5,7	1,1	,2	99,2	563
39	English teaching should be more practical than theoretical	53,6	31,8	13,0	1,1	,5	100	563
40	Efforts should be made to help students acquire English language fluency	56,0	39,1	4,3		,2	99,6	563
41	English teaching methodologies must be innovative	54,4	36,9	7,3	,7	,2	99,5	563
42	To learn English it is necessary to have a tutor or teacher	37,5	33,4	23,8	4,8	,4	99,9	563
43	Old people have more difficulties (than young people) when learning English	20,8	29,8	34,1	11,0	4,1	99,8	563
44	If English is not practiced, it is forgotten	40,9	42,5	11,9	3,6	1,1	100	563
45	English pronunciation is difficult to learn	11,4	27,9	35,5	22,4	2,5	99,7	563
46	To learn English it is necessary to study it in person or face-to-face	32,9	29,3	25,9	9,9	,9	99,3	563
47	In English class it should be emphasized more on the development of speaking skills	36,6	46,9	14,4	1,4	,4	99,7	563
48	In English class oral activities in group facilitate English language learning	41,0	44,9	11,4	1,6	,4	99,3	563
49	It is important that teachers demand more from students to learn English	44,2	45,3	8,7	1,6	,2	100	563
50	Competitive activities in class promote learners' interest in English language learning	39,1	46,7	11,7	1,8	,5	99,8	563
51	Repetition exercises facilitate English language learning	39,8	42,8	13,7	2,1	1,1	99,5	563
52	When you want to learn English you can learn it	69,6	25,9	2,8	,4	,5	99,2	563
53	Learning English is easier for some people than for others	45,4	37,4	11,9	3,6	,72	99,02	563
54	An English teacher should correct the student when necessary	68,0	27,7	3,0	,4	,2	99,3	563
55	In English class it is more important to make more emphasis on the speaking skill than on grammar issues	23,1	27,4	40,0	7,8	1,2	99,5	563
56	Singing in English facilitates English language learning	46,4	38,9	13,1	1,1	,5	100	563
57	It is important that English teachers teach their students how to learn	52,0	35,9	9,9	1,4	,4	99,6	563

APPENDIX L

Translation of Table 26

Breakdown of Students' (n: 563) combined response rates in percentages

#	ITEMS	RESPONSES %		n.
		1	2	
1	To learn English it is necessary to go to an English speaking country	35,9	32,9	563
2	Listening to music in English facilitates English learning	91,1	1,6	563
3	In English class the learning of vocabulary should be emphasized	89,7	2,5	563
4	Audiovisual activities are important when learning English	86,5	0,7	563
5	English teaching should be didactic	90,8	0,9	563
6	Explicit teaching of grammar is important for English learning	82,8	3,2	563
7	To learn English it is necessary to show attitude and interest to achieve it	95,6	0,9	563
8	Learning English is easier if it is done since it is a child	81,2	4,2	563
9	It is necessary to devote time every day, or almost every day, to learn English	86,3	2,8	563
10	To learn English it is necessary to practice listening skills	95,9	0,9	563
11	English classes should be primarily conversational	83,1	1,4	563
12	In English class the use of English should be 100%	52,2	17,4	563
13	In English class you can resort to Spanish	62	11,9	563
14	English teachers should make much emphasis on pronunciation	94,1	0,6	563
15	To learn English it is necessary to have different resources or classroom materials, such as books, cds, audiovisual aids and technological aids	89,7	2,1	563
16	It is important to learn English	97	0,7	563
17	English teaching should be ludic	91	1	563
18	It is important to do English reading exercises when learning English	89	1,2	563
19	To learn English it is necessary to know about English-speaking countries	36,6	20	563
20	To learn English it is necessary to interact with people whose native language is English	66	8,3	563
21	English teachers should be from an English-speaking country	17,9	44,2	563
22	The more personalized the English class is, the more you learn	79	3,9	563
23	English teaching should be focused on everyday situations	73	2,4	563
24	It is important to do extra class work to learn English	67,8	6	563
25	British English is better than American English	33	9,4	563
26	Pronunciation is more important than accent	58,7	8,3	563
27	Translation exercises promotes English language learning	72,8	7,5	563
28	In English class it is important to perform writing exercises	92,2	1,5	563
29	It should be taught both American and British English	71,1	4,6	563
30	In English class it should be emphasized more on the development of speaking and listening skills	87,2	2,1	563
31	It is very difficult to learn English in a Spanish-speaking country	37,8	28,3	563
32	English is a difficult language to learn	34,4	37,5	563
33	To learn English it is important to establish a good student-teacher interrelationship	83,3	3,2	563
34	To learn English you need to think in English	76	5,5	563
35	It is important that the English teacher have been in an English	39,6	21,7	563

	speaking country			
36	English teaching should be integrated into the teaching of other subjects	77,4	5,7	563
37	English courses online are valuable resources to support learning English	78,1	4,7	563
38	An English teacher must motivate their students to learn the language	92,2	1,3	563
39	English teaching should be more practical than theoretical	85,4	1,6	563
40	Efforts should be made to help students acquire English language fluency	95,1	0,2	563
41	English teaching methodologies must be innovative	91,3	0,9	563
42	To learn English it is necessary to have a tutor or teacher	70,9	5,2	563
43	Old people have more difficulties (than young people) when learning English	50,6	15,1	563
44	If English is not practiced, it is forgotten	83,4	4,7	563
45	English pronunciation is difficult to learn	39,3	24,9	563
46	To learn English it is necessary to study it in person or face-to-face	61,4	10,6	563
47	In English class it should be emphasized more on the development of speaking skills	83,5	1,8	563
48	In English class oral activities in group facilitate English language learning	85,9	2	563
49	It is important that teachers demand more from students to learn English	89,5	1,8	563
50	Competitive activities in class promote learners' interest in English language learning	85,8	2,3	563
51	Repetition exercises facilitate English language learning	82,6	3,2	563
52	When you want to learn English you can learn it	95,5	0,9	563
53	Learning English is easier for some people than for others	82,6	4,3	563
54	An English teacher should correct the student when necessary	95,7	0,6	563
55	In English class it is more important to make more emphasis on the speaking skill than on grammar issues	50,5	9	563
56	Singing in English facilitates English language learning	85,3	1,6	563
57	It is important that English teachers teach their students how to learn	87,9	1,8	563

APPENDIX M

Translation of Table 27

Top ten items with "Neither agree nor disagree" response percentage

#	ITEMS	RESPONSES %	n.
		Neither agree nor disagree response frequency	
25	British English is better than American English	**56,8**	563
19	To learn English it is necessary to know about English-speaking countries	**43,2**	563
55	In English class it is more important to make more emphasis on the speaking skill than on grammar issues	**40,0**	563
35	It is important that the English teacher have been in an English speaking country	**38,4**	563
21	English teachers should be from an English-speaking country	**37,8**	563
45	English pronunciation is difficult to learn	**35,5**	563
43	Old people have more difficulties (than young people) when learning English	**34,1**	563
31	It is very difficult to learn English in a Spanish-speaking country	**33,6**	563
26	Pronunciation is more important than accent	**31,8**	563
1	To learn English it is necessary to go to an English speaking country	**30,9**	563

APPENDIX N

Translation of Table 33

Factors Extracted from the COBALTALI

FOUR-FACTOR SOLUTION	
#	**FACTOR 1 (18 ITEMS)**
2	Listening to music in English facilitates English learning
3	In English class the learning of vocabulary should be emphasized
4	Audiovisual activities are important when learning English
6	Explicit teaching of grammar is important for English learning
14	English teachers should make much emphasis on pronunciation
15	To learn English it is necessary to have different resources or classroom materials, such as books, cds, audiovisual aids and technological aids
18	It is important to do English reading exercises when learning English
28	In English class it is important to perform writing exercises
29	It should be taught both American and British English
30	In English class it should be emphasized more on the development of speaking and listening skills
38	An English teacher must motivate their students to learn the language
40	Efforts should be made to help students acquire English language fluency
47	In English class it should be emphasized more on the development of speaking skills
48	In English class oral activities in group facilitate English language learning
49	It is important that teachers demand more from students to learn English
50	Competitive activities in class promote learners' interest in English language learning
56	Singing in English facilitates English language learning
57	It is important that English teachers teach their students how to learn
#	**FACTOR 2 (17 ITEMS)**
5	English teaching should be didactic
8	Learning English is easier if it is done since it is a child
9	It is necessary to devote time every day, or almost every day, to learn English
10	To learn English it is necessary to practice listening skills
11	English classes should be primarily conversational
16	It is important to learn English
17	English teaching should be ludic
22	The more personalized the English class is, the more you learn
23	English teaching should be focused on everyday situations
24	It is important to do extra class work to learn English
34	To learn English you need to think in English
36	English teaching should be integrated into the teaching of other subjects
39	English teaching should be more practical than theoretical
41	English teaching methodologies must be innovative
44	If English is not practiced, it is forgotten
52	When you want to learn English you can learn it
54	An English teacher should correct the student when necessary
#	**FACTOR 3 (10 ITEMS)**

13	In English class you can resort to Spanish
31	It is very difficult to learn English in a Spanish-speaking country
32	English is a difficult language to learn
33	To learn English it is important to establish a good student-teacher interrelationship
42	To learn English it is necessary to have a tutor or teacher
43	Old people have more difficulties (than young people) when learning English
45	English pronunciation is difficult to learn
46	To learn English it is necessary to study it in person or face-to-face
51	Repetition exercises facilitate English language learning
53	Learning English is easier for some people than for others
#	**FACTOR 4 (6 ITEMS)**
1	To learn English it is necessary to go to an English speaking country
12	In English class the use of English should be 100%
19	To learn English it is necessary to know about English-speaking countries
20	To learn English it is necessary to interact with people whose native language is English
21	English teachers should be from an English-speaking country
35	It is important that the English teacher have been in an English speaking country